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1669

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ALEXANDER BROWNE

ARS PICTORIA

OR AN

ACADEMY

TREATING OF

DRAWING, PAINTING, LIMNING, *AND* ETCHING.

To which are added

Thirty Copper Plates expreſsing the choiceſt, neareſt and moſt exact Grounds and Rules of Symetry; Collected out of the moſt Eminent *Italian*, *German*, and *Netherland* Authors.

By *ALEXANDER BROWNE*

Practitioner of the *Art* of *Limning*, and Published for all Ingenious Gentlemen and Artiſts.

LONDON,

Printed by *J. Redmayne*, for the Author, and are to be ſold by him at his Lodging, at the Sign of the *Angel*, the Corner of *James ſtreet* and *Long Acre*, and *Richard Tompſon* at the Sun in *Bedford ſtreet*, and *Arthur Tooker* at the Globe in the *Strand* near the *New Exchange*, 1669.

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WELLCOME
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TO THE

Most Excellent and Illustrious Princess

ANNE

Dutchess of MONMOUTH & BUCCLUGH, &c.

WIFE

To the Most Illustrious and High-born Prince

JAMES

Duke of Monmouth, &c.

Madam,

ALl the World knovvs that Nature in its perfection needs nothing of Art, and that great Beings regard no more the use of it, then sound Men do that of Medicine. Your Graces therefore goodness in ovvning Peinture, vvhich you once honoured to learn, vvith as much charity as dying Saints build Colledges, is so signal, that it oblieges in duty this imperfect Treatise to beg your pitty: and then I am sure 'tvvill deserve other persons esteem. Your Grace vvas pleased from my poor instructions to dravv a nobler honour to this Art, then Artists themselves e're could do. Not that I presume to claime any share of this, vvhich is solely due to the Grandeur of your Quality and svveetness of Humour.

The

The Epiſtle Dedicatory.

The Gods themſelves here prayers, and ſmell Sacrifices, and declare they love theſe practiſes for no other end, but to bleſs and encourage us Men in our Obedience, and Induſtry, As much as can, or may be attributed of Divinity to mortals, is certainly due to your Grace, vvho are ſo much higher advanced in glory, by hovv much the meaner and undeſerved a Title I can make to my ſelf of your indulgence, to this honeſt, though not grand eſſay, unleſs only in this, that it intreats the favourable Eye of ſo Eminent a Perſonage.

However Madam, ſince my own Fortune is low and narrovv, I have endeavoured to get ſo much credit in the World, as to make a conſiderable collection both from the living and the dead, and that of the beſt Painters and Sculptors of their times.

Theſe Madam vvill be more beholding to you for their memory, then to their ovvn monuments: For paint and marble muſt needs dye ſooner then your great Name.

For their ſakes unparallel'd Princeſs ovvn, and conſerve this ſmall Record of their vvorth: and after that, (becauſe your bounty is unlimited) pray pardon the rude hand, and bold addreſs of

Your Graces moſt devoted, and humbleſt Servant

Alexander Browne.

To the Reader.

YOu have the Contents of this Treatiſe ſo particularly in the *Title-page*, that I meant it no other *Preface*: But upon ſecond thoughts, I ſhall ſay ſomewhat to the Conception of *Paulus Lomatius*, Page the 11*th*. touching the Affinity betwixt *Symetry* and *Muſique*. It has been urged, that in regard of the Obſcurity of the *Muſical termes* there made uſe of; as *Diapente*, *Diapaſon*, *Seſquialter*, &c. It were requiſite to give ſome explanation of them; but I ſhall rather referr the Reader for his ſatisfaction to *Merſennus*, *Morley*, or any other writer upon that Subject; then enlarge this Diſcourſe; which I have contracted, both for his eaſe and my own, as much as I could conveniently. But if any ill temper'd perſon ſhould be angry at the hard words and Terms of *Art* here, becauſe they do not well underſtand them: They may know this was not intended for a Dictionary, but a Treatiſe only for the ingenious, who need no Key to lock or unlock this Cabinet, in which theſe Myſterious terms are couched. Neither have I been ambitious in the leaſt of popular applauſe in the publication of this Piece, but meerly have aimed at the publique benefit, being ashamed it ſhould be objected 'that I who have in the courſe of my Life and Study been ſo much beholding to others, ſhould prove ungrateful, or niggar, to conceal any thing from the view of the world, ſince we are as Men and Chriſtians, all deſigned by induſtry and experience to improve each other; more particularly what I have here wrote, is directed to the lovers and favourers of all noble Sciences, to whom I ſtand oblieg'd, and whoſe pardon I only beg, wherein I may be found unhappily or ignorantly offenſive. And indeed I am extreamly unwilling any perſon ſhould loſe time, or take the trouble of caſting his eye here, were not I modeſtly of the opinion, ſomething may not be impertinent, or unworthy curious mens Lection.

Farewel I am your humble Servant A.B.

In Laudem Operosi Voluminis

ALEXANDRI BROWNE

Generosi &c.

TAndem *Browne* venis, expectatissimus hospes
Florilegas imitatus Apes; qui Sculptilis Artis,
Quicquid ab externis populis exsuxeris, annis
Pluribus, in proprium prudens disponis Hymitton,
Et nunc in Patrii partiris commoda Mundi.
Quanta Poëtarum præconia dona morantur,
Quanta Patronorum Te! Qui velamine dempto
Artibus, antiquum reparata luce Timantem
Afflâsti, & Britonum radiis melioribus orbem.
Quod si *Roma* dabat pro digno munere serta,
Civica, cui civem Bello servaverat unum;
Debentur tum *Browne* tuis quot serta capillis!
Qui tot semineces artes in luminis auras
Duxisti, propriaque manu cælata novâsti
Artificum simulachra Senum. Jam Coüs *Apelles*,
Praxitilesque cluens, & magni nominis Urbin,
Angelo & insignis, visi rupisse sepulchris,
Et rediviva sibi sumpsisse cadavera rursus,
Auspiciis mi *Browne* tuis. Correggio jamjam
Et Delvincentus, nec non Holbenus, & audax
Titian, et nostri Vandikus gloria secli,
Dogma Pythagoricum, de sponte fatentur, & artes
Sculpendi pariter veterum, pariterque modernæ,
In chartas migrâsse tuas: ubi machina Mundi
Et nitido natura Globo spirare videtur
Principiis animata novis. I fortibus ausis
Dexter Alexander, multo et fælicior illo
Qui face lanquentem ferroque subegerat Orbem;
Alitibus procede bonis! nomenque per artes
Sic extende tuas, ut te primæva salutent
Teque hodierna suum, venturaque secla Magistrum.

P. Fisher dudum Militum

Serviens Major.

On my

INGENIOUS FRIENDS

Most

EXCELLENT PIECE.

HEre you may find objected to your Eye,
Paint, the creations, Man Gods Ima'gry.
What ſcatter'd ray's of Heaven in us remain,
Are here preſerv'd, if not renew'd again.
For who can draw to life the humane face
Do's therein ſhew the intellectual grace.
Whoſe fair Idea *though it's not oppreſt*
With natures body, or Arts colour dreſt;
From thence yet all thoſe num'rous ſhadow's flow,
Which men ſo worſhip and admire below.
Fancy th' original, and parent, gives
This Art a birth, which beyond nature lives,
And keeps the Father youthful as the ſon,
With the ſame colours, when complexions gone.
Death cannot part them; for when ugly age
That Grand deſtroyers, laſt and fatal page
Is all decipher'd, He a column ſtands
Coæval to his heirs, and all his lands.
And when his body to the grave is ſent
He ſerves for furniture and monument.

NAture is troubleſom in its decayes,
No Poet cares to wear the wither'd bayes.
'Tis kindneſs, and 'tis manners to remove,
When we can neither be belov'd nor love.
Muſt then all die? no, that the painters skill
Forbid's, aſsisted with the Writers *quil.*

This immortality dear Friend you cauſe,
Without ordaining, or repealing Laws.

Your

Your Book advances further, and displayes
What Plutarqu's Morals, or his lives have said.
Weary Philosophy expires in strife
Whil'st you expose plain truth unto the Life.
Natures excess, or narrowness by you
Is civily reprov'd, and all that's due,
Of beautious art, and Symetry to man;
Must own its payment to your mind and hand.
We know no form of Angels but from paint,
Nor difference make of devil, or of Saint.
The famous Michael Angelo so drew
Hell and the damned, and in such a hue;
'Twas thought th' Archangel some old grudge might bear,
And bid his name-sake to renew the war.
'Tis then hop'd by the painter at the least,
He may assistant be unto the Priest.
Since Virtu's lovely drawn, and vice soe ill
Sinners by him converted are 'gainst will.
Emblems of honour, piety, and love,
Arts greatest teachers, by him only move.

J. H.

ERRATA,

In Pag the 4 Line. 25. for it, Read us; for whosoevever Read vvhatsoever. In Pag 17. line 15. for in, read and. In pag 73. line 24. for Sonne, read sum. In pag 74. line 4. for near, read were. In pag 87. line 10. for keeping colour, read keeping the colour. In pag 88. line 21. for silvea, read silver. In pag 90. line 3. for use with, read use it vvith. In pag 92. line 7. for vvhite Serus, read vvhite or Serus.

OF THE

Vertue and Praiſe

OF

PROPORTION, or, *SYMETRY*.

SUCH is the Importance and Vertue of *Proportion*, that nothing can any way ſatisfie the Eye without the help thereof: So that whatſoever worketh any Pleaſure or Delight in us, doth therefore content us; becauſe the Grace of *Proportion* conſiſting in the meaſure of the *Parts*, appeareth therein; Wherefore all the *Inventions* of Men carry with them ſo much the more Grace and Beautie, by how much the more Ingeniouſly they are proportioned, whence *Vitruvius* ſaith, *That whoſoever will proceed in his Works with Judgment, muſt needs be acquainted with the Nature and Force of Proportion*; which being well and kindly underſtood, will make him not only an excellent Judge of ancient and late Workmen, but alſo an *Inventor* and *Performer* of Rare and Excellent *Matters* himſelf.

Now the Effects proceeding from *Proportion* are unſpeakable, the Principal whereof, is that Majeſtie and Beautie which is found in *Bodies*, called by *Vitruvius*, EURITHMIA. And hence it is, that when we behold a well-proportioned thing, we call it *Beautiful*, as if we ſhould ſay, Indued with that exact and comely Grace, whereby all the Perfection of ſweet *Delights* belonging to the Sight, are communicated to the Eye, and ſo conveyed to the Underſtanding.

But if we ſhall enter into a farther Conſideration of this *Beauty*, it will appear moſt evidently in things appertaining to Civil Diſcipline; for it is ſtrange to conſider what effects of Piety, Reverence and Religion,

are ſtirred up in mens Minds, by means of this ſuitable comelineſs of apt proportion. A pregnant example whereof we have in the *Iupiter* carved by *Phidias* at *Elis*, which wrought an extraordinary ſenſe of Religion in the People, whereupon the antient and renowned *Zeuxis* well knowing the excellency and dignity thereof, perſwaded *Greece* in her moſt flourishing Eſtate, that the Pictures wherein this Majeſty appeared were dedicated to great Princes, and conſecrated to the Temples of the Immortal gods, ſo that they held them in exceeding great eſtimation; partly becauſe they were the Works of thoſe famous Maſters, who were reputed as gods amongſt men; and partly becauſe they not only repreſented the Works of God, but alſo ſupplyed the defects of Nature: ever making choice of the Flower and Quinteſſence of Eye-pleaſing delights.

Neither yet is this Proportion proper unto painting alone, but extendeth it ſelf even unto all other Arts; inſomuch as is drawn from mans Body, which as the Painter chiefly propoſeth to himſelf, (as *Vitruvius* noteth) ſo doth the Architect much imitate it, in the convenience of his buildings, and without which, neither the Carver, nor any Handicrafts man can performe any laudable Work; becauſe it was the firſt pattern of all Artificial things: So that there is no Art, but is ſomeway beholding to Proportion: yet notwithſtanding the Painter as (*Loo Baptiſta Albertus* affirmeth) inſomuch as he conſidereth mans Body more eſpecially, is juſtly preferred before all other Artizans, which imitate the ſame, becauſe antiquity meaning to grace Painting above all the reſt, Handicrafts men exempting onely Painters out of that number.

Of the Neceſsity and Definition of Proportion.

IT was not without juſt Cauſe, that the antient *Græcians* (at which time the Art of Painting had fully attained to his Perfection, by the Induſtry of *Timantes*, *Euſenidas*, *Ariſtides*, *Eupompus*, *Sicyonias* and *Pamphilus*, the Famous *Macedonian* Painter, and Maſter of *Apelles*, who alſo was the firſt learned Painter directing his Workes by the Rules of Art, above any of his Predeceſſors, and well conſidering that whatſoever was made without meaſure and proportion, could never carry with it any ſuch congruity as might repreſent either Beauty or Grace to the judicious beholder) were wont to ſay, that it was impoſſible to make any tolerable, much leſs any Commendable Picture, without the help of *Geometry* and *Arithmetick*, wherefore they required the Knowledge thereof, as a thing moſt neceſſary, which ſaying was alſo approved by *Philip Macedo*. And ſurely it is impoſſible (to omitt the meere Artizans) that he who is ignorant of theſe two Sciences, ſhould underſtand the exact meaſure and proprotion of any probable or true Body, the neceſſity of which proportions ſhall be shewed hereafter.

It is apparent then that a Picture lacking this, is like a piece of Marble groſly wrought, without Rule or Meaſure, or two Columns: which although they be to ſlender, or to groſſe, to short or to long, yet are called Columns; as Dwarfes and deformed Creatures are named Men. Now this Book ſhall contain the general proportions of the principal things alone, from whence the reſt are derived, of which before I begin to ſpeak. *I hold*

it convenient to consider the definition of proportion, and the parts thereof;

Proportion is a correspondency and agreement of the Measure of the parts between themselves and with the whole, in every Work, this correspondency is by *Vitruvius* called Commodulation, because a Modell is a Measure which being taken at the first measureth both the parts and the whole. And this is that (to omitt the several kindes thereof, which shall be distinguished in their due place,) which for so long space having been lost, was the cause why the exact and true proportion of Mans Body was not understood, by Occasion whereof there never came any Excellent Peeces abroad, although the matter were never so costly: And consequently that the Painters being ignorant of that they had in hand, instead of proportionable men made lame Pictures as the Architecture, Temples, Images, and Pictures made throughout the whole World (but especially in *Italy*) about the time of *Constantine* the Great, untill *Giotto* in *Tuscany*, as *Andrino di Edesia Paueſe* in *Lombardy* can sufficiently witness, and this (in a word) is that, the knowledge whereof so satisfieth the judgment, that it maketh it not onely able to make whosoever we list, but also teacheth us to judge of Images, and Pictures, as well antient as new, and without this a Painter (besides that he is not worthy the name of a Painter) is like one which perswadeth himself he swimmeth above Water, when indeed he sinketh, to conclude then it is impossible to make any decent or well proportioned thing, without this *Symetrical* measure of the parts orderly united.

Wherefore my greatest endeavour shall be, to lay open the worthiness of this part of painting unto

unto all ſuch as are naturally inclined thereunto, by reaſon of a good temperature joyned with an apt Diſpoſition of the parts thereof, for ſuch men will be much affected therewith; to the end they may the better perceive the force of *Nature*: vvho by induſtry and help of a good conceipt, vvill eaſily attain to ſo deep a reach, that they vvill be able upon the ſudden to diſcern any Diſproportion, as a thing repugnant to their *Nature*: unto which perfection on the contrary Side they can never attain, vvhoſe Judgements are corrupted through the *Diſtemperature* of their *Organical* parts; I ſpeak of ſuch vvho not knowing the virtue of proportion, affect nothing elſe, but the vain ſurface of *gariſh colours*, wrought after their own humour, vvho prove only *Dawbers* of *Images* and *Walls* throughout the whole World; moving the beholders partly to ſmile at their Follies, and partly to greive that the Art ſhould be thus diſgraced by ſuch abſurde *Idiot's*: who as they have no judgement herein; ſo do they run into divers other moſt ſhamefull errors, into which I never heard that any ever fell, who were acquainted with the *Beauty* of proportion, but have rather prooved men of rare Spirits and ſound Judgements, as may be gathered by the great requeſt it was in, untill the times of thoſe Princes, as well antient as late: *But before I proceed any farther, I think it neceſſary to treat ſomething of a* Head *in particular, Firſt,*

Of the Head in Prophile or ſide-wayes.

THe manner to make this *Head* by juſt and ſafe rules is thus, Firſt forme a perfect equall Triangle in what poſition you will, turning the Triangle to make the *Face* upon one of the three ſides, be it

According to *Odoardo Fialetti.*

which it will, either upwards or downwards, higer or lower; dividing that side into three equall parts, the one to serve from the lower part of the *Haire*, to the lower part of the *Forehead*; the Second thence to the under part of the *Nostrils*; the Third to the lower part of the *Chinn*: now having framed these three lines, draw a little crooked stroak vvith a *Cole* or *Chalk*, out of the right Line, that may reach from the top of the *Forehead* unto the *Eyebrow*, from vvhence draw away the slope Line, bending at the end. To performe the *Nose*, either long, short, gross or thin, as you vvould have it, ending that at the second distance, vvhere the *Nostrils* end, then subdivide the remaining third part in the midst, vvhere the *Mouth* shall be placed for the parting of the upper and under *Lipps*, then frame the *Chinn*, having a respect to the perpendicular Line, that it fall not out of the middle of the *Chinn*; adjoyning thereto the under *Chinn* down to the *Throat-pit*. So with the other two dividing lines, the one from the Top of the *Forehead* downwards (and ends in the midst of the back part of the *Ear*;) the other proceedeth upwards from the *Chinn*, ascening till that meet with the Superiour descending Line, whose Intersection directeth the *Eare*, that the circumference thereof stretch not too far: Thus with your judgement take the upper part of the *Forehead*, and come to describe a great circular Line about, to Form with that the roundness of the *Head*, unto the Nape of the *Neck*, keeping the proportion that *Nature* teacheth; and from thence downwards frame the rest of the *Neck*, remembring that the Tip of the *Eare* doth not exceed the lower part of the *Nostril*. *So you may have the Head in what*

Position

Position you will, so this abandon not the two other Lines, each concurring in their due points.

Of the Foreright Face.

BEing then desireous to draw the Foreright *Face*, it will be necessary to Forme a perfect *Ovall*, which being made, divide it in the midst, with a line the longest way (that is to say) a perpendicular line, divide this line into three equall parts, allowing a fourth of one of the three parts for the Hair in the *Forehead*, the First for the *Forehead*, the Second for the *Nose*, the Third for the *Chin*. In the midst thereof must the *Mouth* be formed, alwayes remembring that the *Eyes* must be in one line, the cross line of the *Nose* and *Mouth* must alwayes be correspondent to the cross line where the *Eyes* are placed; and the *Eyes* must be the length of one *Eye* distant from the other; and that their inward Corners be perpendicularly over the out-side of the N*ostrils* punctually, but to make the *Eares* in a Foreright *Face* proportionable, they must be much Foreshortned by Foreshortning, I mean when the *Eye* doth not see the full Latitude of it, the proportion of the length of the *Eare*, to be from the *Eyebrowes* to the bottome of the N*ostrils*, and then joyn the Neck with the *Hair* in such sort as may seem most pleasant unto the *Eye*.

Of the Head in Foreshortning.

HItherto I have treated of the *Head*, both Foreright and in other Positions, but that you might know all that is needfull for the perfect understanding of this profession, it is necessary that I specifie the manner how to draw the F*ace* by an easy, ab-

ſolute and fair way; Treating thus I propound to you Methodical means therein; becauſe my intent is to Facilitate the matter in that manner, but without writing thereupon it may be intelligible, for a draught well made hath that power, that it makes it ſelf underſtood without any diſcourſe of the Author thereon, but I alwayes obſerve both the one and the other alſo; I ſay that the *foreſhortning* which is made onely with *Fretts*, *Grates*, *Squares*, or with *Geometrical* Inſtruments, breed onely a confuſion of lines, which is not the beſt principal of expert Ingenuity, the reaſon whereof is, that it can hardly be meaſured by any Rule, unleſs the whole Body be framed together. *Therefore I will ſhew an eaſy Rule, very like to that of the foreright* Face, *that is, to make a Circular draught with the aſpect upwards, or downwards, as in the foreright* Head, *where the Traverſe lines are ſtraight, but theſe go Circularly, for if the* Heads *flye upwards the Traced ſtrokes and the Diviſions muſt be raiſed, with caution that the* Eares *and* Eyes *fall not out of their due points, as is ſignified in the firſt Plate.*

Of the ſide face without any Meaſure.

BEing deſireous to make the ſide *face* without any Triangle or Meaſure, which with a little care and practice, obſerving the diſtances and Meaſures which will ſerve for Direction, becauſe the *Head* and other parts of the Body ought to be proportional, and made from Meaſures; it will eaſily follow, Framing or Traceing many, you may not only Facilitate it by the *Eye* and Judgement, but alſo accommodate the Hand, to Trace and draw, all things right, for it is true that the *Eye* will have its place. I having drawn certain ſtroaks or draughts from

from the life of *nature*, and reduced it with the Pencil into Colours, have found it come off punctually right, of a correſpondent bigneſs to that, which I have imitated, and have not found any thing diſproportioned, but have alwayes found it fall out right as I would have it, therefore I ſay that this Rule, and Meaſure which I have ſet down, in the *Porphile* or other opoſitions of the *Head*, is not any hindrance to the excellency of the Art, nor will weaken your worth, but will ſerve for a general Rule being once poſſeſt therewith, and alſo become prevalent when occaſion ſhall require, to make a *Head* Ten times as big as the *Life*; for that with this Meaſure, you ſhall readily Frame it right by any great *Head*; and that becauſe the underſtanding therein is equally extended, but the more the capacity is wanting, the more my Labour will farther when need requireth. *Theſe then I give as Principal for the firſt ſtroakes, as in the next figure may be perceived, which is from the* Forehead, *as I have already ſaid, for the beginning of the* Noſe; *that is from the lower part of the* Hair, *to the hollowneſs of the* Noſe *and the* Noſtrils, *and from thence to the* Chinn.

Several Obſervations, in drawing a Head after the Life.

AND becauſe the greateſt difficulty, and principal parts of this Art conſiſt in ſome part in drawing the lively Reſemblance of a *Face*, therefore I thought it very neceſſary to add this as a further Direction to draw any *Face* after the life. Therefore if you will draw any *Face* after the life, that it may reſemble the party you draw it after; take notice in the Firſt place of the *Phyſiognomy* or circumference of the *Face*, whither it be round or long, Fat or Lean, Big or Little,

ſo that in the Firſt place you muſt be ſure to take the right *Phyſiognomy* and bigneſs of the *Face*, and in caſe it be a Fat *Face*, you will perceive the *Cheeks* to make the ſide of the *Face* to ſwell out, and ſo make the *Face* look as if it were ſquare: And if it be neither too fat nor too lean, it will be round for the moſt part; but if it be a lean *Face* the *Jaw-Bones* will ſtick out, and the *Cheeks* fall in, and the *Face* will be long and ſlender, obſerve when you draw the outmoſt circumference of a *Face*, to take the *Head* and all with it, or otherwiſe you may be deceived in drawing the true bigneſs of a *Face*, then you muſt diligently and judiciouſly obſerve and diſcern all the Gentle *Maſter Touches*, which gives the Spirit and Life to a *Face*, and diſcovers the Grace or Diſpoſition of the *Mind*, wherein lieth the whole Grace of the Work, and the Credit of the *Artiſt*, you may eaſily diſcern a ſmiling Countenance in the Corners of the *Mouth*, when they turn up a little; you may beſt diſcern a ſtaied and ſober Countenance in the *Eyes*, when the upper *Eyelids* comes ſomewhat over the Balls of the *Eyes*, but a frowning Countenance is eaſily diſcerned in the *Forehead* by the bending of the *Eyebrowes*, and ſome few wrinkles about the top of the *Noſe* between the two *Eyebrowes*, and a laughing Countenance is eaſily diſcerned all over the *Face*, but an angry Countenance is diſcerned by extraordinary frowning; there are alſo ſome touches about the *Eyes* and *Mouth* which you muſt diligently obſerve, which gives the Spirit and Life to a *Face*.

The Proportion of a Man of Ten faces.

IT ſtandeth with good reaſon, that (following the Method of the Antient *Græcians*) I ſhould make this

this Body, whoſe proportion I intend to handle particularly, anſwerable to the *Symetry* of all other Artificial Bodies, which may be made farr more Beautifull, then *Nature* affordeth any; wherein notwithſtanding the whole *Symetry* of Art may be comprehended more or leſs; and this Point I mean to handle in this Chapter and the next, wherefore I have prefixed this before the reſt, becauſe it is, as it were the Foundation of them all. This Figure then is Firſt divided into Ten *parts* or *faces*: the Firſt whereof (I mean in length) beginneth at the top of the *Head*, and reacheth to the root of the *Noſtrils*: the Second from thence to the *Throat-pit*: the Third thence to the parting of the *Breaſt*: the Fourth thence to the *Navile*: the Fifth thence to the *Privities*, which is juſt the middle of the length of the Body, from thence to the Sole of the *Foot* are Five *Faces*, whereof two lye between the *Privities* and the *Mid-Knees*, the other three betwixt that and the Sole of the *Foot*. *Thus according to this Diviſion all theſe Parts are equall.*

Now the firſt Part from the Top of the *Head* to the *Noſe*, anſwereth to the ſpace betwixt that and the *Chinn*, in a triple proportion, (which maketh a *Diapente* and a *Diapaſon*) that beneath the *Chinn*, and the *Throat-pit* anſwereth to that betwixt the *Noſe* and the *Chinn* in a double proportion (which makes a *Diapaſon*) whereunto the *Head* anſwereth in the ſame proportion; the Three *faces* (between the *Throat-pit* and the *Privities* anſwereth to the Second betwixt them and the *Knee Seſquialter* proportion, whence ariſeth a *Diapente*, but with the *Leggs* they are *Uniſons* for it hath the ſame proportion with the *Thigh*.

According to *John Paule Lomatius.*

Now the breadth of this Body conſiſteth likewiſe of Ten *faces*; namely between the extremities of both the middle *fingers*, when the *Armes* are ſpread

abroad, and is thus divided: One to the *Wriſt* of the *Hand*, one and a half to the *Elbow*, ſo much to the *Clavicolæ* or joynt of the *Shoulder*, and one to the *Throat-pit*, ſo that only the *Hands* are *Uniſons*, with that between the *Shoulder-Joynt* and the *Throat-pit*, and the ſpace between the *Shoulders* and the *Elbow*, with that between the *Elbow* and the *Wriſt*; ſo that theſe anſwer to each other in a *Seſquialter* proportion called a *Diapente*) again a *face* is as much as the diſtance between the *Nipples*, and ſo much more from each of them to the *Throat-pit*, making an *Equaliter* Triangle.

The compaſs of the *Head* from the *Eyebrowes* to the *Neck* behinde is double to the length of the whole *Head*, the circumference of the *Waſte* is a Triple *Seſquialter* to the *Diameter* thereof; and is all one with the Trunk of the Body, which is three *Faces*, the circumference of the Body under the *Arm-pits*, and the ſpace between them and the *VVriſt* anſwer in a double proportion, and is all one with any half of the Body.

The Meaſures which are *Uniſon* or all one, and equall between themſelves, are theſe: Firſt the ſpace between the *Chinn* and the *Throat-pit*, is as much as the *Diameter* of the *Neck*: the circumference of the *Neck*, is as much as from the *Throat-pit* to the *Navile*, the *Diameter* of the *VVaſte* anſwereth to the diſtance between the *Knobbe* of the *Throat* and the top of the *Head*, and this is the length of the *Foot*, the ſpace between the *Eyelids* and the *Noſtrils* is all one with that betwixt the *Chinn* and the *Throat-bone*, again from the *Noſe* to the *Chinn*, is as much as from the *Throat-Bone* to the *Throat-pit*, moreover the ſpace from the hollow of the *Eye* below, and from the *Eye-brow* to the Center of the *Eye*, is the ſame with the prominency of the

Noſtrils,

Noſtrils; and ſo much it is between the *Noſtrils*, and the end of the *Upper Lip* ſo that theſe three ſpaces be equal, beſides the diſtance between the top of the *Naile* of the *Fore-finger* and the laſt Joynt thereof; and from thence to the *VVriſt* are equall, again the ſpace between the *Naile* of the Middle *Finger*, and the laſt Joynt thereof; and from thence to the *VVriſt* is all one, the greater Joynt of the *Fore-finger*, is the height of the *Fore-head*, and the ſpace between that Joynt and the top of the *Naile*, is equall to the *Noſe*, beginning at the bottome of the moſt eminent Arch above the *Eyes*, where the *Fore-head* and the *Noſe* are divided, the two firſt Joynts of the Middle *Finger*, are equall to the ſpace between the *Noſe* and the *Chinn*, the firſt Joynt whereon the *Naile* groweth; is the diſtance between the *Noſe* and the *Mouth*; ſo that the ſecond Joynt anſwereth to the Firſt in a *Seſquialter* proportion, as alſo doth the ſpace between the *Mouth* and the *Chinn*, (whence ariſeth the Concord *Diapente*) the bigger Joynt of the *Thumb* giveth the length of the *Mouth*, the ſpace betwixt the top of the *Chinn*, and the Dint under the *Lower Lip*, anſwereth to the leſſer Joynt of the *Thumb*, and is as much as from the *Noſe* to the ſame Dint, wherefore from the greater Joynt there is a *Seſquialter* proportion and a Concord (*Diateſſeron*) the laſt Joynt of each *Finger*, is double to the length of the *Naile*, and maketh a *Diapaſon* from the middſt between the *Eye-brows* to the outward Corner of the *Eye*, is as much as from thence to the *Eare*, the heighth of the *Fore-head*, the length of the *Noſe*, and the length of the *Mouth* are (*Uniſons*) the breadth of the *Hand* and *Foot* are all one, the length of the *Foot* in reſpect of the breadth maketh a double (*Supra bi partient, and a Diapaſon and a Diateſſeron.*)

The breadth of the *Foot* to his height at the *Inſtep*, makes a (*Seſquialter* and a *Diateſſeron*) the breadth of the *Hand* is double to the heighth, the Arches of the *Eye-browes*, are equall to the Arch of the *Upper Lip*, at the Diviſion of the *Mouth*, the breadth of the *Noſe* and the *Eye* is all one, and either of them half the length of the *noſe*, the *navile* is the midſt betwixt the *noſe* and the *Knee*, from the top of the *Shoulder* to the *Elbow*, and from thence to the *Hand*, is a *Diateſſeron*, the ſpace between the lower end of the *Eare*, and the Joynt of the *Shoulder*, is half as much as the breadth of the *Breaſt* at the *Shoulders*, which maketh a double *Seſquialter* the whole breadth of the Body to the ſpace between the top of the *Head*, and the *Throat-Bone* makes a *Quadruple proportion*; whence ariſeth a *Diſdiapaſon*, the ſame proportion hath the Cubit, or lower Part of the *Arme* from the *Elbow* to the top of the Middle *Finger*, with the breadth of the Body, by the *Armes* ſpread abroad the breadth of the *Flanckes* is double to the *Thigh* or a *Diapaſon*, *the length of a Man is all one with his breadth.*

The breadth of the *Back* at the *Arme-pits*; of the *Hippes* at the *Buttocks*, and of the *Leggs* at the *Knees*, in reſpect of the Soles of the *Feet*, make a triple (*Seſqui-tertia*) the like is from the ſpace of the *Head* to the *Breaſt-pit*: the *Diameter* of the *Head* at the *Forehead*, to the depth thereof, (that is between the *Eyes*, and the Nape of the *Head*) is a *Seſquioctava*: whence ariſeth a *Tone*, the circumference of the *Fore-head* at the Temples, is a *Quadruple* to his heigth, or a *Diapaſon*, the heighth of the *Face*, and the ſpace between the *Chinn* and the *Throat-Bone*, makes a triple proportion, or a *Diapaſon*, and *Diapente*.

And thus if we ſhould proceed, we might finde in the Head *all the other proportions of the ſmalleſt Parts, together with their Concord moſt exactly: which for Brevities ſake I omit, haſte-*

ing

ing to the Measures of all the Parts, which are truly Symmetrical, and correspondent to the Parts of the VVorld.

The Proportion of a Mans Body of Ten faces.

THe proportion of a long and slender Body must be patterned after the Body of *Mars* the god of Warr, amongst the *Gentiles*, who by reason of his Heat and Dryness hath a long and slender Body agreeable thereunto; and may also serve for any other Body of that *nature*, as being Boysterous, Cholerick, Cruel, Martial, Mutinous, Rash and prone to Anger; as are all active and strong men, by reason of the bigness of their *Bones*, void of much Flesh, which causeth them to be of a hard, and sharp Body, with great Joynts, and big N*ostrils* dilated with Heat, whose *Eyes*, *Mouth*, and other passages, are correspondent; as in his due place shall be more particularly shewed.

The breadth of the Hand, being divided into Four Parts, maketh the Four *Fingers* from the top of the Middle F*inger* to the *Elbow*, is the Fourth Part of the whole Body; *And this proportion is of such indifferent Beauty, that sparing the Martial asperity and bouldness, it may fit divers other slender and noble Bodyes, as occasion shall serve.*

The extravigant Proportion of Ten Heads.

SInce my purpose is to Handle this matter exactly it shall not be amiss, briefly to touch the sleight proportion of Ten *Heads* delivered by *Albert Durer* for although it be (in truth) to slender in all Mens Judgements, yet I may not omit it, because it hath the authority of so Famous a Man in the Skill of

Painting, as *Germany* cannot match again. First then this proportion is in length from the top of the *Head* to the *Chinn*, a tenth part of the whole: thence backwards to the top of the *Fore-head*, an Eleventh: *The face may be divided into Three equal Parts, as the reſt are.*

The Proportion of a Young Man of nine Heads.

I Am of opinion that *Francis Mazzalinus* would have proved the only rare Man of the World, if he had never *Painted* any other kind of *Pictures* (as rude, groſs, and melancholly) then theſe ſlender ones which he repreſented with an admirable dexterity as being naturally inclined thereunto; ſo that if he had only repreſented *Apollo*, *Bacchus*, *the Nimphes*, &c. he had ſufficiently warranted this his moſt acceptable proportion, which was ever ſlender, and oftentimes to ſleight, but when he took upon him to expreſs the Prophets, our Lady and the like in the ſame; as appeareth by his *Moſes at Parma*, *our Lady at Ancona*, and certain *Angells* not farr from thence, and divers other things quite contrary to the *Symetry* they ought to have, he gave a preſident to all other *Painters* to shunne the like error: which himſelf might alſo have eaſily avoided, being reputed little inferiour to *Raphael Urbine*, whom he might have propoſed to himſelf as a patterne; for *Raphael* ever ſuited his perſonages anſwerable to the variety of the *Natures*, and *Diſpoſitions* of the Parties he imitated: ſo that his Old Folks ſeem ſtiff and crooked, his Young Men agile and ſlender and ſo forth in the reſt, which example admoniſheth us, that a *Painter* ought not to tye himſelf to any one kind of proportion, in all his Figures; for beſides that he ſhall loſe the true Decorum of the Hiſtory:

He

He shall commit a great absurdity in the *Art* by making all his *Pictures* like *Twinns*: Into which error notwithstanding divers (otherwise worthy *Painters*) have runn, whose names I suppress; and especially one of those two great ones, which over-sight all good practitioners will easily discern, because all their Figures are of an Uniforme proportion, though wonderfully expressing variety of actions: And for our better understanding in this kind of proportion (as best fitting Young Men, who are somewhat Beautifull by means of their slenderness, agility, and gentle Disposition mixed with a kind of boldness) *Raph: Urbine* hath very well expressed it in St. *George* fighting with the *Dragon*, now to be seen in the *Churches of St. Victore de Fratri in Milane*; *in St. Michaell at Fontainblew in France*, and in that *George* which he made for the Duke of *Urbine* on a Peice richly guilt, according to which Observation of his, every Man may dispose of this proportion in the like young Bodies, now for our more exact insight hereinto, by way of precept, we must first note that a slender young Body of Nine *Heads* is from the top of the *Head* to the end of the *Chinn*, a Nineth Part of the whole length: And thence back again to the root of the *Hair* a Tenth or Eleventh Part, as I have observed in *Raphaels St. Michael* and in an old *Apollo*, but which way soever you make it, this space is divided into Three equal Parts; whereof the First makes the *fore-head*, the Second the *Nose*, the Third the *Chinn*, howbeit I grant that in a *face* which is the Eleventh Part (by reason of a certain Tuff of *Hair* which is usually expressed) the *fore-head* becometh lower by a Third Part; which Rule the antient *Græcians* kept, as their *Statutes* do evidently witness.

The Proportion of a Man of Eight heads.

WHereas in every Work there is ſome one entire Figure, whereunto all the particulars of the whole Hiſtory ought to be *principally* referred, the *Painter* ought not to imagine, (becauſe he is more skilfull in repreſenting ſome other thing in the work then that which beareth the reference of the whole) that therefore he ſhall deſerve commendation, but rather diſcredit, for it is moſt certain that Work will prove offenſive, where ſome inferiour and by matter, is more curiouſly handled then the principal, and the rather, becauſe the other Parts cannot chuſe but looſe their Grace. A thing which hath cauſed divers excellent *Painters* (as well new) as antient (being purpoſely carried away with too great a deſire of doing well) to leave their Works imperfect, which they could not remedy any other way, then by utterly defacing that which they had done, were it never ſo excellent.

A moſt pregnant example whereof we have in that antient *Painter Euphzanor*; who being to draw the *Twelve gods* in *Athens*, he began with the Picture of *Neptune*, which he wrought ſo exquiſitely both for proportion, colour, and all other points; that purpoſing afterwards to make *Jupiter* with far greater perfection, he had ſo ſpent his conceit in the Firſt Figure, that he was not able afterwards to expreſs any of the other gods, much leſs *Jupiter*) the like Diſgrace happened to *Zeuxes* by the Naturaleneſs of his Grapes, and the Imperfection of the *Boy*, not unlike unto which was that of *Leon: Vincent* of late Dayes, who being to Paint *Chriſt* at his laſt Supper in the middſt of his Diſciples in the *Refectory of St.*

Maria

Maria de Gratia in Milane; and having finished all the other *Apostles*, he represented the two *James's* with such perfection of *Grace* and *Majesty*, that endeavouring afterwards to express *Christ*, he was not able to *perfect* and *accomplish* that sacred Countenance, notwithstanding his incomparable skill in the *Art*, whence being in a desperate Case, he was enforced to advise with *Bernard Zenale* concerning his Fault, who used these Words to comfort him. *O Leonard this thine Error is of that quality, that none but God can correct it*; for neither thou nor any Man living, is able to bestow more Divine Beauty upon any Figure, then thou hast upon these *James's*, wherefore content thy self, and leave *Christ* unperfect, for thou mayest not set *Christ* near those *Apostles*, which advise *Leonard* observed, as may appear by the Picture, at this day, though it be much defaced. *Whence my Council is; that for the avoiding of the like Errors, we examine the original thereof, having an especial regard to our proportions; as the cheif Cause of the grossness, slenderness, clownishness, and daintyness of Bodies: whence all the Beauty and Ill-favourdness of Pictures proceedeth; wherefore let each Body have his true and particular proportion: which is to divide the Body into Eight equal Parts, whereof the head is one, which may serve for all Men in general, who agree with this most absolute form, whose proportion followeth.*

Of the Proportion of a Mans Body of Seven Heads.

THe grand Philosopher *Pythagoras*, giveth sufficient Testimony of the Truth of these Rules concerning the proportion of Mans Body; insomuch as by their help he distinguished the proportion of *Hercules* his Body, from the other gods, by finding out the true Stature thereof, and consequently how much he exceeded the Stature of ordi-

nary Men; of whom *An: Gellius* writeth, that he obſerved the Quantity of *Hercules Foot*, wherewith the race in *Acaia* before *Jupiter Olmypius* his Temple (where the *Olympian* Games were celebrated every Fift Year) was meaſured; and found it to agree, in the Number of *Feet*, with the other Races, which were ſix hundred Twenty Five *Foot*; and yet to be much longer then any of the reſt.

By which Example we may eaſily conceive, that every proportion will not fit all kindes of Bodyes, becauſe there are many varieties thereof, as there are Natural Differences of Bodyes, wherefore I will proceed to the handling of the proportion of a Body of Seven ſubſtantial and big Heads, all whoſe Members are ſtrong, ſturdy, and raiſed; his length then from the Crown of the Head to the Sole of the Foot, is ſeven-times the length of his head.

Of the Proportion of a Woman of Ten Faces.

ALbeit Dame *Nature*, the cunningeſt Work-Miſtreſs of all others, doth ordinarily obſerve ſo great variety, in all her Workes, that each of her particulars differeth in *Beauty* and *Proportion*; yet notwithſtanding, we find by experience, that ſhe is more induſtrious, In shewing her Art and Skill in ſome few moſt Beautifull creatures, whereupon I (inſomuch as Art being the counterfeiter of *Nature*, muſt ever endeavour to imitate the moſt abſolute things) intending to handle the proportion of a *Woman* mean not to ſpend much time in diſcourſing of the ſeveral proportions of all the Sorts of *Women* which *Nature* affordeth (for that were infinite) but purpoſe to write only of the moſt pleaſing proportions appearing in dainty and delicate Bodies, now this Body is thus meaſured: Divide the Body into

Ten

Ten equall Parts, whereof the *Head* muſt be one; from the Crown of the *head* to the *privities* muſt be Five of the Ten, and from the *privities* to the Sole of the *Foot* Five more.

And this is the Meaſure and proportion of a comely Womans Body, drawn not only from the obſervations of the antient Statues of *Venus*, but even from the ground of Nature it ſelf; which proportion may ſerve for any Woman, wherein you would eſpecially repreſent the perfection of *Beauty*, and not for every common Woman; as Martial, Huntreſſes, grave Matrones, or other ſtayed Women, inclineing to groſſneſs, as the other tend to ſlenderneſs, and becauſe all the other proportions depend upon theſe two (as may eaſily be proved by Geometrical lines) I thought good to ſet them down firſt, as a Rule and Direction for the reſt, which I purpoſe now to handle, with the ſame Method I did the other two: Leaſt otherwiſe, it might happily be thought, that theſe proportions were made by chance; wherefore all the particulars are to be framed, anſwerable to the *Nature* of ſuch Bodies as they reſemble; otherwiſe ſome one diſproportionable and unſuitable Part, will cauſe as great, or rather a greater blemish in a beautifull Body: *As a Tuſcan Capital, in a Corinthian Cullumne; or a Phrigian note mixed with a Dorick.*

The Proportion of a Woman of Ten heads.

THe proportion of a *Woman* of ten *Heads* in length, is thus meaſured, between the top of the *Head* and the Sole of the *Foot*; is ten times as much as between the *Chinn*, and the top of the *Head*, thence to the *Privities* is half.

The Proportion of a woman of Nine Faces.

IT was not without juſt cauſe that *Vitruvius* in the Firſt of his *Architecture*, diſtinguiſhing the manner of *Temples* by their ſeveral Orders; dedicated the *Ionick* Order to the goddeſs *Juno*, as being ſlenderer then the *Dorick*, and more ſubſtantial then the *Corinthian*: Conſidering no doubt very wiſely, that this goddeſs was not naturally ſo Grave as *Veſta* nor yet ſo ſlender and beautifull as *Venus*; notwithſtanding she carrieth a *Matrone* like Beauty, full of *State* and *Majeſty*, for which cauſe alſo, I apply this Portion of Nine *Faces* unto her, as moſt properly belonging unto her, being inferiour in Beauty to the proportion of *Venus*, and yet the moſt beautifull amongſt the *Matrone*-like, wherein *Majeſty* and *Grace* ought to be repreſented. *Moreover this proportion may be applyed unto Queenes of Middle-age; or unto any other honeſt, fair and grave women; and doth moſt properly appertain to our Lady.*

Of the Proportion of a VVoman of Nine Heads.

THough I might deſcribe divers other proportions of Bodies (albeit of ſmall worth in reſpect of the principal) yet I purpoſe to pretermit them, as well for their ſmall uſe, as for brevities ſake, wherefore concluding the Principal and moſt Regular proportions, I come to the reſt, and Firſt to that of Nine *Heads*, which being very ſlender and comely, as repreſenting the third Degree of *Beauty*, may be given not only to *Minerva*, but alſo to *Diana* for her *ſwiftneſs* and *agility*, as alſo to the *Nimphs* of the Rivers, and to the *Muſes*, though with divers attire, in regard of their place. This proportion

is

is from the top of the *head* to the *Chinn*, a Ninth Part of the length. The *Face* from the Root of the *hair*, to the *Chinn*, may be either a tenth or eleventh Part, as shall pleaſe the Painter. *This divided into Three equal Parts, the firſt gives the Fore-head, the ſecond the Noſe, the third the Chinn.*

The Proportion of a VVoman of ſeven heads.

IT was not without good Ground, that the old *Græcians* made the goddeſs *Veſta* but Seven *heads* high; becauſe this proportion is *Grave* and *Matrone* like, and therefore was attributed to the Earth, the common Parent of all things. Beſides you may give it to any other goddeſs, which hath any kind of reſemblance with the Earth, as alſo to the more ſtaied and antient ſort of Women, wherefore it were a great overſight to give a ſlender and delicate proportion to the *Sibills* or other Grave and Sage *Propheteſſes*; as it were likewiſe to make a *Prophet* with ſuch a proportion as belongeth to young Men.

A Child of ſix Heads *is thus meaſured, dividing the body into ſix equal parts, whereof the* Head *muſt be one.*

A Child of five Heads *is thus meaſured, dividing the body into five equal parts, wherof the* Head *muſt be one.*

A Child of four Heads *is thus meaſured, dividing the body into four equal parts, whereof the* Head *muſt be one.*

The Reaſon why I have not given Deſcriptions or Rules, upon all the particular deſignes upon the Plates, *farther then the* Side-way, *or* Triangle, Fore-right *or* Fore-shortening, *is becauſe I think it unneceſſary, unleſs you could force Dame* Nature *to obſerve the ſame method, with them antient Rules of* Alberta Durera *or Couſine, the grand*

reaſon is becauſe every Print ſhews its deſigne of it ſelf, to any one that is Ingenious, obſerving the due diſtances, and lights.

The Definition of Painting.

Painting is an Art which with proportionable Lines, and Colours anſwerable to the life, by obſerving the Perſpective Light, doth ſo imitate the Nature *of corporal things, that it not only repreſenteth the thickneſs and tenderneſs thereof upon a Flat, but alſo their actions, and geſtures, expreſſing moreover divers affections and paſſions of the Mind.*

For the better unfolding of which Definition we muſt underſtand that every *Natural* thing conſiſteth of *Matter* and *Forme*: Whereunto *Genus* and *Difference* anſwer in *Logick*, whence the *Logicians* ſay, that *Genus* declareth the *Eſſence* of things, and *Difference* of their *Forme* and *Eſſential* Qualitys. Wherefore I think it not amiſs, according to this *Doctrine*, to lay open the above named Definition, by expounding all the *Differences* whereby the Art of *Painting* is diſtinguished from all other *Arts* and *Sciences*; the *Genus* then in *Painting* is *Art*, which is prooved by two Reaſons. The Firſt is drawn from the Definition of *Art* it ſelf, which is nothing elſe but a ſure and certain Rule of things to be made, the Second from the *Natural* things themſelves, which are a *Rule* and *Meaſure* to the greater Part of the *Arts* and *Sciences*, in the World (inſomuch as they are Gods creatures, and conſequently indued with all ſuch Perfection as their *Nature* is capable of, and therefore may well be a certain Rule to Artificial things.

Hence

Hence it appeareth that *Painting* is an *Art*, becauſe it imitateth *natural* things moſt preciſely, and is the counterfeiter and (as it were) the very *Ape* of *nature*; whoſe *Quantity*, *Eminency* and *Colours*, it ever ſtriveth to imitate, performing the ſame by the help of *Geometry*, *Arithmetick*, *Perſpective*, and *Natural Philoſophy*, with moſt Infallible Demonſtrations, but becauſe of *Arts* ſome be *Liberal*, and ſome *Mechanical*, it ſhall not be amiſs, to ſhew amongſt which of them *Painting* ought to be numbred. Now *Pliny* calleth it plainly a liberal *Art*, which authority of his may be proved by reaſon, for although the *Painter* cannot attain to his end, but by working both with his *hand* and *pencil*, yet there is ſo little pains and labour beſtowed in this Exerciſe, that there is no Ingenious Man in the World, unto whoſe *Nature* it is not moſt agreeable, and infinitely pleaſant.

Painting is a Liberal Art.

For we read of the French King *Francis*, the Firſt of that name, that he oftentimes delighted to handle the *pencil*, by *exerciſing*, *drawing* and *painting*; the like whereof is reported of divers other Princes, as well antient as late; amongſt whom I may not conceal *Charles Emanuel* Duke of *Savoy*, who (in all other *Heroical Vertues*, ſo amongſt other *Liberal Sciences* in this) imitated and moſt happily equalled, that great King *Francis* his *Grand-father* by the *Mothers* ſide, ſo that in theſe and the like *Exerciſes*, nothing is *Baſe* or *Mechanical*, but all *Noble* and *Ingenious*.

For to ſay the truth; what Prince or Ingenious Man is there, which taketh not delight with his *pencil* to imitate *God* in *nature*, ſo far forth as he is able: Farthermore it cannot be denied, but that the *Geometrician* alſo worketh with the *Hand*, by drawing *Lines*, as *Circles*, *Triangles*, *Quadrangles* and ſuch like *Figures*, neither yet did ever any Man therefore account

Geometry a *Mechanical Art*, becauſe the Hand-labour therein imployed is ſo ſleight, that it were an abſurdity in reſpect thereof, to reckon it a baſe condition.

The like reaſon is there of *painting*, the Practice whereof, doth ſo little weary a Man, that he which was *Noble* before, cannot juſtly be reputed *Baſe* by exerciſing the ſame; but if beſides all this, we ſhall farther conſider, that *Painting* is ſubordinate to the *Perſpectives*, to *Natural philoſophy*, and *Geometry* (all which out of queſtion are *Liberal Sciences*) and moreover that it hath certain Demonſtrable concluſions, deduced from the Firſt and immediate Principalls thereof, we muſt needs conclude that it is a *Liberal Art*.

Now what kind of Liberal Arts *it is* (*to omit all other proofs*) *may eaſily appear by the foreſaid* Definition; *where it is firſt ſaid, that it repreſenteth upon a plain, the* Thickneſs *and* round-
The Differences neſs *of Bodily things, not excepting any, either* Natural *or* Artificial, *whereby we may gather that it belongeth to the* Painter *alſo to repreſent* Pallaces, Temples, *and all other things made by the hand of the* Artificer.

Moreover it is ſaid, that it repreſenteth the Figure upon a *Plaine*, and hereby it is diſtinguished from *Carving* (though not *Eſſentially*, but onely *Accidentally* (as it is ſaid in the *Proem*) by reaſon of the diverſity of the matter, wherein both of them repreſent *natural things* which imitateth N*ature* likewiſe, though it expreſs the perfect roundneſs of the Bodies as they are created of *God*, whereas the P*ainter* repreſenteth them upon a Flat *Superficies*: *Which is one of the chiefeſt reaſons, why* Painting *hath ever been preferred before* Carving.

Becauſe by meer *Art* upon a *Flat*, where it findeth only length, and breadth, it repreſenteth to the *Eye* the

the Third Dimenſion, which is roundneſs and thickneſs; and ſo maketh the Body to appear upon a *Flat*, where naturally it is not.

Furthermore it is added in the Definition: that it repreſenteth the *Bodily Motions*, which is moſt true, for in that moſt *Famous* Picture of the laſt judgement, done by the Hand of the *Divine Michael Angelo*, in the Popes Chappel at *Rome*, who ſees not what motions may be expreſſed in Bodies, and in what order they may be placed; there may you ſee our *Lady*, St. *John*, and the other *Saints* repreſented with great Fear; whileſt they beheld *Chriſt* moved with indignation againſt the wicked, who ſeem to fly away and hide themſelves behind *his* Back, that they might not behold *his* angry countenance wholly inflamed with indignation: There ſhall you behold the guilty, who being aſtonished with Fear, and not able to indure *his* glorious preſence, ſeek dark Dens and deep Caves to hide themſelves in. *Motion.*

On the one ſide, you ſhall finde the *Saints* ſeeming (in a Sort) to finish the *Act* of the reſurrection, aſcending up into the *Aire*, to be placed at the right hand of *Chriſt*: On the other ſide you would think you ſaw the *Angels* coming down from *Heaven* with the Standard of the *Croſs*: And on the other, carrying the Bleſſed *Soules* to be placed at the right hand of *God*.

And to conclude there is no corporal Motion, whether it be forwards, or backwards; on the right hand, or on the left; upwards, or downwards, which may not be ſeen expreſſed, in this moſt artificial and admirable Picture, *but if we ſhall farther conſider the paſſions and motions of the Mind, whereof the Definition maketh mention likewiſe, they are alſo to be found in the ſame work, with no leſs* Art *then admiration to the beholder, eſpecially in* Chriſt

in whom you may see Wrath *and* Indignation *so kindled, that he seemeth to be altogether incensed therewith.*

In the Saints a reverent in the damned, a desperate fear.

Again both in the *Saints*, and damned *Soules*, being *appalled*, and *confused*, is most lively expressed, an exceeding dread and horror of the wrathfull *Judge*, and in a Word, many motions as well of the Body, as of the Mind, are to be found in the Works of this *Divine Bonaraot*, of the rare *Raphael Urbine*, and of other worthy *Painters* both *old* and *new*, as well of *love* as *hatred*, *sadness* as *mirth*, and all other *passions* of the Mind.

All which representations are after declared in that part of the Definition, where it is said, that *Proportion. Painting*, with proportionable lines maketh, &c. where we must Note that the *Painter* in his descriptions, doth not draw lines at randome, without *Rule*, *Proportion*, or *Art*, (as some vainly have imagined) since the *Arranteſt Bunglers* that are, proceed with some little Method, and although *Horace* in his book *de Arte Poetica* saith: that

> *The* Poet *and the* Painter, *hath like Patent to invent,*
> *A* Story *and dispose the same as shall him best content.*

Yet that is thus to be understood, that it is lawfull for him to express a *Figure*, in what action he list, as in shewing *Julius Cæsar* in the *Pharsalian Warr*, in some action, which peradventure he never did; as setting him in the *Vaward*, when he perchance was found in the *Rereward*, or representing him encouraging his Souldiers to *Valour* which perchance he never did; this only excepted the *Painter* is bound to proceed in all his Works according to *proportion* and *art*. Wherefore before you begin to Stell, delineate or trick out the *proportion* of a Man, you ought to know

his

his true *Quantity* and *Stature* for it were a groſs abſurdity to make a Man of the length of Eight *Faces*; which is of Nine or Ten, beſides this, we ought to know what *proportion* the *Fore-head* hath with the *Noſe*, the *Noſe* with the *Mouth* and the *Chinn*, the whole *Face* with the *Neck*, and in a Word to learn the true proportions of all things *natural* and *artificial*.

Now becauſe it ſeemeth a matter of great difficulty, and almoſt impoſſible for one Man to attain to the full perfection of all this *Knowledge*, we may propoſe unto us the Example of the moſt judicious *Apelles*, who when he undertook any ſpecial piece of *Work*, wherein he meant to ſhew the utmoſt of his Skill, he uſed to Hang it forth to publique View, hiding himſelf behind, to the end he might hearken what every Mans Judgement was, concerning the *proportion* and *Workman-ſhip* thereof, and according to each mans cenſure of ſuch things as appertained to their *profeſſions*. He ſtill corrected his work, as on the contrary ſide, he did *confute* and *reprehend* the cenſures of ſuch as would take upon them to give their *judgements* of ſuch things as appertained not to their *profeſſions* (as did the *Shoemaker*, who not content to find Fault with the *Shooe* of one of his *Pictures*, would needs cenſure the other Parts) unto whom he anſwered, *ne Sutor ultra crepidam*.

Let not the Shoemaker preſume beyond his Laſt.

Furthermore the *Painter* ought to obſerve an *Order* and *Method* in thoſe proportionable lines therein, imitating *Nature* in her proceedings; who firſt preſuppoſeth *Matter* being a thing void of *Forme*, *Beauty*, *Bound*, or *Limit*, and afterwards bringeth in the *Forme*, which is a beautifull and limited thing, in like ſort the *Painter* taking a *Panel* or *Cloth* (in the Surface whereof there is nothing

but a *Flat* and plain *Super-ficies*, without Beauty or Limitation of parts) he *trimmeth*, *primeth*, and *limiteth* it by tracing thereon a *Man*, a *Horſe*, or a *Cullumne*, *forming* and *tricking* the true proportion thereof, and (in a Word) *Imitating by lines, the Nature of the thing to be painted in breadth, length, or thickneſs.*

Rule. And becauſe in this place there falleth out a certain Precept of *Michael Angelo*, much for our purpoſe, I will not conceal it, leaving the farther *interpretation* and *underſtanding* thereof, to the judicious Reader. It is reported then that *Michael Angelo* upon a time gave this obſervation to the *Painter Marius de Scina* his Schollar, that he should alwayes make a Figure *Pyramidal*, *Serpent* like, and multiplyed by One Two and Three, in which *precept* (in my Opinion) the whole *Myſtery* of the *Art* conſiſteth, for the greateſt *Grace* and *Life* that a *Picture* can have, is, that it expreſs *motion*; which the *Painters* call the *Spirit* of a *Picture*. *Now there is no* Form *ſo fit to expreſs this* Motion, *as that of the* Flame *of* Fire, *which according to* Ariſtotle, *and the other* Philoſophers *is an* Element *moſt active of all others, becauſe the* Forme *of the* Flame *thereof is moſt apt for* Motion, *for it hath a* Conus *or ſharp* Point *wherewith it ſeemeth to divide the* Aire *that ſo it may aſcend to his proper* Sphere, *ſo that a* Picture *having this forme will be moſt beautifull.*

Now this is to be underſtood after two ſorts: either that the *Conus* of the *Piramis* be placed *upwards*, and the *Baſe downwards* as in the Fire, or elſe contrary-wiſe, with the *Baſe upwards*, and the *Conus downwards*: In the Firſt it expreſſeth the width and largeneſs of a Picture, about the Leggs and Garments below, shewing it ſlender above, *Piramidal Wiſe*, by diſcovering one *Shoulder*, and hiding the other, which is shortned by the turning of the Body; in the Second it

sheweth

sheweth the *Figure* biggeſt in the upper Parts, by repreſenting either both the *Shoulders*, or both the *Armes*, shewing one *Legg* and hiding the other, or both of them after one ſort, as the Skilfull *Painter* ſhall judge fitteſt for his purpoſe, ſo that his meaning is, that it ſhould reſemble the *Forme* of the letter *S* placed right, or elſe turned the wrong way as ƨ becauſe then it hath his *Beauty*: Neither ought he only to obſerve this Forme in the whole Body, but even in every Part; ſo that in the *Leggs*, when a *Muſcle* is raiſed outwards on the one ſide, that which anſwereth directly on the contrary ſide, muſt be drawn in and hid, (as may be ſeene in the life)

The laſt part of Michael Angelo *his Obſervation was, that a* Picture *ought to be multiplied by* One, Two, *and* Three, *and herein conſiſteth the chiefeſt* Skill *of that* Proportion *for the* Diameter *of the biggeſt place between the* Knee *and the* Foot *is double to the leaſt, and the largeſt part of the* Thigh triple.

But to return to the Definition, that part remaineth to be expounded, wherein it is ſaid that *Painting* repreſenteth things with *Colours*, like to the *Life*; whence it is to be marked that the *Artificial painter* ought to proceed according to the courſe of *Nature*, who firſt preſuppoſeth *Matter* (as the *Philoſophers* hold) unto which it addeth a *Forme*, but becauſe to create the *Subſtances* of things proceedeth from an infinite *power*, which is not found in any creature (as the *Divines* teach) the *Painter* muſt take ſomething inſtead of *Matter*, namely *Quantity* proportioned; which is the *Matter* of *painting*, here then the *Painter* muſt needs underſtand that proportioned *Quantity*, and *Quantity* delineated, are all one, and that the ſame is the *Material* Subſtance of *Painting*, for he muſt conſider, that although he be never ſo Skilfull in the uſe of his *Colours*, and yet lacketh this *Delineation*, he is

Colour.

The Matter of Painting.

unfurnished of the Principal Matter of his *Art*, and consequently of the substantial parts thereof; neither let any Man imagine that hereby I go about to diminish the *power* and *vertue* of *colour*, for if all particular Men should differ one from another in Matter alone (wherein out of all doubt all agree) then all Men must needs be one, and so that most acceptable variety of so many particulars as are now in the world would be wanting (which variety is caused by those Seven *particularities* which the *Philosophers* call *particularizing Qualities*,) that is Seven substantial *accidents*, which cause the *particularity* and *singularity* of *substances*, so if the *Painter* should only *Pourtrait* out a Man in just *Symetry* agreeable to *Nature*; certainly this Man would never be sufficiently distinguished by his mere *Quantity*: But when unto this proportioned *Quantity* he shall farther add *Colour*, then he giveth the last *forme* and *perfection* to the *Figure*: Insomuch, that whosoever beholdeth it may be able to say, this is the *Picture* of the *Emperour Charles* the Fift, or of *Philip* his Sonne, it is the *picture* of a *Melancholick*, *Flegmatick*, *Sanguine*, or *Cholerick Fellow*, of one in love, or in fear of a bashfull young Man, &c. and to conclude the *picture* will attain to such perfection, that the party counterfeited may easily be known thereby: *Wherefore I advise the* Painter *to be very skilfull in the use of* Colours, *as in that wherein consisteth the whole perfection of his* Art.

Individuantes Qualitates.

Painting and Carving differ.

And in this point alone is *painting* distinguished from all other *Arts*, and chiefly from *Carving*, because in precise imitation of the life the *painter* performeth much more then the *Carver* is able, for the *Carvers* intent is only to give the self same quantity to his *Figure* which his *Natural pattern* hath, so that his *special purpose* is to make the *Figure* equal to the life; which cannot therefore be said to be perfectly

fectly like thereunto, becauſe *Phyloſophy* teacheth us that Similitude, is not properly found in *Quantity*; but in *Quality* only: now the *Colour* which the *Painter* uſeth, giving thereby the *Similitude* and proper *Reſemblance* to his *counterfeits*, is moſt truly and properly *Quality*, and although we uſually call one thing like to another, when it hath the ſame *Quantity*, yet this is an improper ſpeech, for if we ſhould ſpeak properly, we ſhould call it *Equal* and not *Like*, wherefore Similitude is found only in *Quality*, and *Equality*, which the *Carver* conſidereth only in *Quantity*, but the *Painter* doth not only endeavour to give the true and juſt *quantity* to his *figure*, by making it equal to the life, as the *carver* doth, but moreover addeth *quality* with his *colours*, giving thereby both *quantity* and *ſimilitude*, which (as hath been proved) the *carver* cannot do.

Now the *Painter* expreſſeth two things with his *colour*: Firſt the *colour* of the thing, whether it be *artificial* or *natural*, which he doth with the like *colour*, as the *colour* of a *blew garment* with *artificial blew*, or the *green colour* of a *Tree* with a like *green*: Secondly he expreſſeth the light of the *Sun*, or any other bright Body apt to lighten or manifeſt the *colours*, and becauſe *colour* cannot be ſeen without light, being nothing elſe (as the *Philoſophers* teach) but the extream *Superficies* of a dark untranſparent Body lightned, I hold it expedient for him that will prove exquiſite in the uſe thereof, to be moſt diligent in ſearching out the effects of light, when it enlightneth *colour*, which who ſo doth ſeriouſly conſider, ſhall expreſs all thoſe effects with an admirable *Grace*; and although the *blew* be equally diſperſed through all the Parts of a *garment*, ſo that there is no more in one part then in another: Yet notwithſtanding when it is illuſtrated

by any light, it cauſeth one kind of brightneſs in that part where it ſtriketh more *vehemently*, then another, in that part, where it ſhineth *leſs*.

Now when the *Painter* would imitate this *blew* thus lightned, he ſhall take his *artificial blew colour*, counterfeiting therewith the *blew* of the *garment*, but when he would expreſs the light, wherewith the *blew* ſeems clearer, he muſt mix ſo much *white* with his *blew*, as he findeth light in that part of the *garment*, where the light ſtriketh with greater force, conſidering afterwards the other part of the *garment*, where there is not ſo much light, and ſhall mingle leſs *white* with his *blew* proportionably, and ſo ſhall he proceed with the like diſcretion in all the other parts: and where the light falleth not ſo vehemently, but only by reflexion there he ſhall mix ſo much ſhadow with his *blew*, as ſhall ſeem ſufficient to repreſent that light, looſing it ſelf as it were by degrees, provided alwayes, that where the light is leſs *darkned*, there he place his *ſhadow*,

In which judicious expreſſing of the effects of light together with the *colours*, *Raphael Urbine*, *Leonard Vincent*, *Antonius de Coreggio* and *Titian* were moſt admirable, handling them with ſo great *diſcretion* and *judgement*, that their *Pictures* ſeemed rather *natural*, then *artificial*; the reaſon whereof the vulgar *Eye* cannot conceive, notwithſtanding theſe excellent *Maſters* expreſſed their chiefeſt *art* therein, conſidering with themſelves that the light falling upon the *fleſh* cauſed theſe and ſuch like *effects*, in which kind *Titian* excelled the reſt, who as well to ſhew his great *Skill* therein, as to merit *commendation*, uſed to cozen and deceive Mens *Eyes*, the like did *Michael Angelo* who to make proof of his ſingular *inſight* in the *Anatomy*, inclined ſomewhat toward the

Ex-

Extream, by raiſing up his *Muſcles* a little too hard, and by this means shewed the *eminencies* and *riſings*, in which naturally they were ſmall, as in the Body of *Chriſt*, &c.

Again *Titian* to make known his *art* in *lights* and *ſhadows*, when he would expreſs the lighteſt *part* of the *Body* uſed to add a little too much *white*, making it much *lighter* then his *pattern*, and in the obſcure parts, where the *light* fell by *reflexion*, a little too much *ſhadow*, in reſemblance of the *decay* of the *light* in that part of the *Body*, and ſo his *work* ſeemeth to be much raiſed, and deceive the *ſight*, for the *light* which cometh to the *Eye*, in a *Pyramidal forme* (as shall be shewed in the enſuing diſcourſe) cometh with a *blunter* and *bigger Angle*, and ſo is ſeen more evidently, whence ariſeth a wonderfull *eminency*, the eſpecial cauſe whereof is, becauſe there is much more *ſhadow* then needeth in that *part*, where the *light* decayeth moſt, ſo that the *vuſual lines* failing, that part cometh to the *Eye* in an *accuter* and *ſharper angle*, and therefore cannot be ſeen ſo perfectly, inſomuch that that part ſeemeth to fly inwards, and ſtand farther off. *Thus when the* Four parts *of a* Body *are much raiſed, and the hinder fly ſufficiently* inwards, *there appeareth a very great* heightning, *which giveth a wonderfrll* Spirit, *and after this ſort* Titian *beguiled the* Eyes *of ſuch as beheld his moſt admirable works.*

Of the Vertue of Light.

Light hath ſo great force in *Pictures*, that (in my *judgement*) therein conſiſteth the whole *grace* thereof, if it be well *underſtood*, an contrarywiſe, the *diſgrace* if it be not perceived, and *evident* example whereof we may ſee in a Body *proportionably* drawn,

which being yet without his *lights*, sheweth very *beautifull*, so far forth as it is *wrought*, but if afterwards it shall be *shadowed* without *judgement* and *art*, so that the *shadowes* be confusedly placed where the *lights* ought to be, and contrarywise the *lights* where the Middle of the *shadows* should be, and the *concavities* and *convexities* disorderly suited, without any Imitation of *Nature* it were better it had never been either *drawn* or *lightned*, whereas having *lights* well disposed, it doth not only add perfection to the *draught* but so sets it off from the *Flat* that it seems to be *imbossed*.

And in this *vertue* and *power* consisteth the chiefest excellency of the *Painter*: Insomuch as this point most properly concerneth him, by making his *counterfeits* seem to be as much raised, by reason of the striking of the *light*, as they are indeed in the *Carvers work*, by reason of the matter, which (as all Men know) hath *height* and *depth*, the *right side* and the *left*, the *fore-part* and the *hinder*, wherefore they say that the thing which the *Carver* intendeth to make, is in the *Marble*, which afterwards becometh *good* or *bad*, by *cutting* and *forming*, but to return to the *light*, I say this moreover, that although it be of such *efficacy*, that it *diminisheth* the *grace* of the *draught*, where it *wanteth* (as is said) yet the *Inartificialness* of the *draught* cannot disgrace it, whence we see, that if the *lights* be *well* and *proportionably* bestowed throughout a Body, which is ill *proportioned* and without *Muscles*, it contenteth the *Eye* of the beholder somewhat the more, by moving him to a desire of seeing the *Muscles* and other necessary *parts*, in such a Body as in the *Pictures* of *Bernard*, *Zenale*, *Friviliano*, viz. the glorious resurrection of *Christ painted* by him, over, the *Gate* in the *Covent* of the *Church* of *Grace* in *Milane*,

and

and many other Hiſtories of his doing as well in *colours*, as in *black* and *white*, in the ſame place.

Wherein may be ſeen *Pictures*, made without *Muſcles*, and other neceſſary accomplishments, for the more gracious *repreſentation* of *Eye-pleaſing perfection*, but yet well placed, and with their *lights*; moſt *artificially* diſpoſed in their *places*, inſomuch that they ſeem to be *imboſſed* outwards, ſuch is the force of theſe *lights* in which you shall alſo find admirable *perſpectives* and *foreſhortnings*, wholly proceeding from the orderly diſpoſing of the *lights*, without which theſe *draughts* would have proved *imperfect*, looſing much of that *grace*, although they were well placed, ſo that we find many *Painters*, who being ignorant of the *art* of *proportions*, only by a little practice, in diſpoſing their *lights* in ſome tolerable *ſort*, have notwithſtanding been reputed good *Artiſts*; which commendation they deſerve not, becauſe they neither have the *Art* of *perſpectives* nor the true repreſenting of any of the *lights*.

Now for an Example of the true *art* of exquiſite beſtowing of theſe *lights*, that *Peece* of *Le: Vincent* amongſt many others, may ſerve us, inſtead of all the reſt of his well *lightned Pictures*, which is now to be found in *St. Francis Church* in *Milane*, where he hath *painted* the conception of our *Lady*; which (to omit other excellencies therein) is moſt ſingular in this point, for the perfection of *lights*, thoſe two *peeces* done by the hand of *Antonio Correggio* are moſt admirable, which are yet to be ſeen in the ſame *City*, with *Cavalier Leon: Aretino*, in one whereof is *painted* fair *Jo*, with *Jupiter* upon a *Cloud*, and in the other *Danae* and *Jupiter* deſcending into her *lap* in the forme of a *golden ſhower*, with *Cupid* and other *Loves*, having their *lights* ſo well diſpoſed, that I dare boldly ſay,

no other *Painter* is able to match him in *colouring* and *lightning*; which Degrees were ſent him out of *Spain*, from his Sonne *Pompey* a *carver*. Moreover *Michael Angelo*, and *Raphael Urbine*, the Fathers and Maſters of *painting* are reputed moſt *rare* and *divine* in *lights*, out of whoſe *Schooles* I may truly ſay, almoſt all the famous *Painters* of *Italy* have attained to the worth of their *fame*.

Now then inſomuch as theſe *lights*, are of ſo great *vertue*, we ought to uſe all diligence for the perfect attaining to the *knowledge* thereof, by applying them to our *draughts*, as is ſhewed, inſomuch as the *art* of *proportion*, *motion* and *foreſhortning*, hath but ſmall uſe or commendation in a *Painter*, without the *knowledge* of theſe *lights*, found out by *reaſon* and *art*, and not taken by bare imitation from the *imboſſed models*, under a falſe apprehenſion of the *light*, without order or diſtance, as alſo in the *lines* and *ſuper-ficies* of Bodies: wherefore they prove falſe, and altogether contrary to the *rules* of *art*. *And thus much I thought good to note concerning this* point *purpoſing now to begin the* treatiſe *of* light *it ſelf, by the aſſiſtance of him who* inlightneth *the underſtanding of ſuch as ſubmit themſelves unto him, with a pure Mind wholly prepared for the receiving of ſo* divine beams.

Of the Neceſsity of Light.

IT appeareth by that which hath been hitherto ſpoken, that a *peece* of *painting* drawn in *proportion* having his true *motion*, and put in *colours* without the *lights*, is like a Body in the *dark*, of whoſe Quantity or Quality a Man cannot *judge*, ſave only by the help of his underſtanding, that is by that *inward conceipt* he hath of the thing, and not by any *outward*, inſomuch as it is hidden from the *external light*, which con-

concurring with the *internal*, by means of the *Beams* proceeding from the *Eye*, makes the diverſity of Bodies known to the underſtanding, after the ſame manner, as they receive their *light* naturally.

Wherefore, I will handle the lights, *ſaying nothing of the* shadows, *although they be handled together with them, for the* shadows *do neceſſarily follow the* lights, *being cauſed by the decay of the* light, *taking ſo much the more* force, *by how much the more* forcibly *the* light *ſtriketh upon the Body, whence ariſeth that exceeding great* raiſing *and* heightning *of a natural* plain, *in a Body receiving the* light *according to his proper* nature.

And by this we ſhall know, how the *lights*, *reflections*, and *natural rebating* of the *lights*, do vary, according to the diverſity of the Bodies, by altering them as ſhall be ſaid, wherein alſo we ſhall ſee the very *perfection* of the *art*; for without this, neither *order*, *forme*, *proportion*, *motion*, *compoſition*, or *figure*; can attain to their *perfection*, like unto a Body without *ſcituation* or *ſpirit*, or to counterfeit *Starrs* without the *light* of the *Sun*, giving them their brightneſs anſwerable to their *qualities*, whereby they may be ſeen. But now as touching my *propoſed matter*, I will Firſt handle the *nature* of *light*, and afterwards (by the help of *Natural Philoſophy* and the *Opticks*, being the Firſt part of the *perſpectives*) I will ſpeak in general of the *primary* and *ſecondary lights*, then of *direct* and *reflected lights*, afterwards how by *Mathematical* reaſons, divers diſtinct *lights* may be ſeen, by reaſon of the variety of the Bodies, and finally of the *qualities* of things appertaining thereunto, how it may be underſtood in all things, and in the *Elements* themſelves.

Of the Nature of Light

THis Word *Light* is diverſly taken: *Firſt* and *principally* it ſignifieth the *Image* of that *Divine Nature* which is the Sonne of *God*, and the *brightneſs* thereof, which the *Platonicks* called the *Image* of the *divine mind*. *Secondly* the comfortable operation of the *Holy Ghoſt*: *Thirdly* that *divine vertue*, which being diffuſed through all the creatures, is in Men their *divine grace*, and in all other living creatures, that *power* whereby they are *preſerved* and *defended*, as that of the *Seraphims* according to *Dionyſius*: Fourthly that intelligence in the *Angels*, which breedeth that *Joy* in them, which paſſeth our underſtanding, yet diverſly received, according to the diverſity of the intelligence apprehending it, as *Marcilius Ficinius* upon *Plato* noteth: *Fifthly* in the *Heavenly* Bodies it cauſeth abundance of *Life*, ſignifying an *effectual propagation*, and *viſible brightneſs* in the *Fire*, with a certain accidentall *power* proceeding from the ſame: *Sixthly* it is taken in Men for the *Light* of their *agent*, underſtanding, which illuminateth their *Patient* or paſſable underſtanding; (and in a Word) for the diſcourſe of *reaſon*, and the *knowledge* of divine things: *Laſt of all* it ſignifyeth a *quality* proceeding from the *Sun* or the *Fire*, which ſo diſcovereth *colours*, that they may be ſeen, and this (as the *Peripateticks* ſay) is the cauſe of *Formal Reaſon*, whereby coloured things are ſeen, whoſe *Shapes* and *Images* paſs to the *phantaſie*, and eſpecially *enlighten* the *Eyes*, in which the *Image* is formed, which Firſt paſeth to the *common ſenſe*, afterwards to the *phantaſie*, and laſt of all to the *underſtanding*, this *Light* is *diſperſed* and *extended* unto all Bodies that are openly propoſed unto it, in which *colour*, and a *beautifull reſplendency* of thick

and

and dark Bodies is discovered (as the *Platonicks* speak) caused by this *light*, together with certain *beneficient* and *generative vertues*. But where the *Sun-beams* fall not, and are not at all dispersed, there (the *beams* of the *Eye* being restrained) remaineth a *dark colour*, which displeaseth, and evil effecteth the *mind*, so that all things according to their *capacity*, feel the power of the *light*, which joyning all Creatures to it self by this lively *heat*, and piercing through them all giveth to each of them his proper *Quality* and *Vertue*.

Whence those who are *judicious* in this *Art*, use to give *lights* to all things after one and the self same *manner*; insomuch as we see, that the *Sun* rising above our *Horizon*, *lightneth* all things in an instant, the reason whereof is, because the *light* hath no contrary which might hinder it, with his *action*. *Wherefore, it performeth his operations in the* Air, *in an instant*.

And hereunto appertaineth that, which the *Philosophers* say concerning the darkness of the *Night*, that it is not caused of any dark or black *colour*, which *coloureth* the *Air*, but only by the absence of the *Sun*, whose *presence*, and *brightness* equally *lightneth* our whole *Hemisphere*, and would in like sort *lighten* the whole *Earth*, together with all compound Bodies, if they were *transparent* as the *Air* is, but being *Opake*, *thick* and *corpulent*, they receive not the *light* in his perfect *brightness*, save only in that *part* which is *directly* opposite to the *Sun*, and therefore in this our *Hemesphere* (because the *Sun* never passeth *perpendicularly* over our *Zenith*) the *Earth* can never be so *lightned*, but that one side or other of it will be *shadowed*, which happeneth unto those *parts*, which lye *directly* under the *equinoctial line*, where the *Sun* at Noon doth so *lighten* the *Earth*, and the *inhabitants*, that it giveth *light* to the whole *circum-*

ference of round Bodies, and there is no *ſhadow* ſeen unto the very *Feet*. *Whence the* judicious *in this* Art, *forbid us to give* lights *in a* picture *unto all Bodies, after one and the ſelf ſame manner.*

But beſides this conſideration of the *light illuminating*, and the *Earth* with all *earthly* Bodies *lightned*, there is another more *forcible reaſon* drawn from the grounds of the *Mathematicks, viz.* from the *viſual lines* of *perſpective*, together with the *Eye*, for the better underſtanding whereof we muſt note, that Three things concurr to our *ſight*, the *viſual lines*, the *coloured* Body, and the *faculty* of *ſeeing*, which is in our *Eye*, the *viſual lines lightned* (which are the proper Matter and ſubject of the *perſpectives*) come to our *Eye* in a *Pyramidal* Forme, the Baſe of which *Pyramis* reſteth in the Object, and the *conus* or *angle* thereof, cometh to our *Eye* more *blunt* and *obtuſe* : And hereby we ſee the Object more plainly and diſtinctly; but if the Object be afar off, the *conus* or *angle* of the *Pyramis* comes to the *Eye ſharper* and *leſſer*, and then our *Eye* cannot diſcerne it ſo *clearly* as otherwiſe it would.

Secondly it is to be noted, that the Object cometh not to our *Eye*, but the *viſible ſpecies* or *ſhapes* are diffuſed through the *clearneſs* of the *Air* unto the *Eye*, which *ſpecies* are nothing elſe but certain *Images*, like unto thoſe which we ſee in a *glaſs*, when a Man or any thing elſe ſtanding againſt it, is repreſented therein.

And if the *coloured* Body or Object ſtand neer to this *Image*, it comes to our *Eye* in the ſame *quantity* and *bigneſs* of the *angle* of the *Pyramis*: Now becauſe this *angle* comes to our *Eye* in an *obtuſe* and *blunt form*, the *Image* alſo ſeems great, and ſo is diſcerned more diſtinctly, but when the *coloured* Object ſtands afar off, the *Image* comes to the *Eye* in a very *ſmall* and *ſlender angle*, and there-

therefore filleth not the *Eye*, but wavereth in such sort, that it cannot be *clearly* and *distinctly* discerned. As touching the Third I have no more to say, but that the *faculty* of seeing is reduced into *Art*, being formed by the concurring of the other Two things required before, *viz.* the *visual lines*, (without which the *Eye* cannot see) and the *Image* of the *coloured* Body, which informeth the *Eye*, by reducing it from meer *ability* into *act*, and informing it more perfectly with a great *Image*, by performing his operations better, and causing the thing to be seen more *apparently* and *distinctly*: whereas with the small *Image* of a thing too far distant, the *Eye* cannot be so well informed, and therefore it cannot see the thing *perfectly*.

From which grounds, I draw these Two reasons, why the self same Body cannot be lightned equally *in all* places.

The First is because the *light* doth not with all his *brightness* illuminate any more then that part, which is directly opposite to it, being not able to *illustrate* the other parts so *perfectly*, by reason of the Nature of the *dark Terrene*, and gross Body, which so hindreth the *beams*, that they cannot *pierce inwards*, and performe their *effects perfectly*.

The Second reason is taken from the *Nature* of our *Eye*, for as the First part of the Body is *seen* and *placed* neerest the *Eye*, comes unto it with a *bigger angle*, so is it also seen more *distinctly*, because it is more *lightned*, but the Second part thereof, being farther of, comes to the Eye in a *lesser angle*, and being less *lightned*, is not so plainly seen as the First, and by this *rule*, the Third part will be *obscurer*, and so the Fourth *proportionably* untill the Eye can see no farther.

Now if you ask me what the *Painter* ought to do, when he would *paint Two*, *Three*, or *Four* Men, standing one behind another, all of them *equally* receiving

the *light*, I anſwer alwayes according to the former *Doctrine*, that although they be *equally lightned*, yet we muſt *paint* the *Second* which is farther off from the Eye *darker*, and the *Third* more then him, and the *Fourth* moſt of all, &c. untill our Eye can ſee no more.

The reaſon is becauſe the Second *ſtanding farther off, cometh to the* Eye *with a* leſſer angle, *wherefore he cannot be ſeen ſo evidently as the* Firſt, *the ſame reaſon there is of the* Third, *&c.*

The ſame is alſo meant *ſide-long*, wherefore whatſoever *Painters* have obſerved this *Doctrine*, have became *excellent*, and nothing *inferiour* to the chief *Maſters* of this *Art*, as *Le: Vincent* with divers others named before, together with *Fac: Tintoretto Marco de Scina*, *Frederick Barozzi* of *Urbine*, *Paulus Caliarius* of *Verona*, *Lucas Gangiaſus*, the *Baſſans*, and *Ambroſe Figinus*.

Now the whole Doctrine *delivered in this preſent Chapter is (for the moſt part) taken out of* Ariſtotle, Alhazen, Vitello, Thomas Aquinas, *and (to conclude) out of all the beſt* Philoſophers *and* Divines, *(whoſe Opinions I approve of) and thus much may be ſpoken for the* Opinions *of other Men.*

Of the Vertue and Efficacy of Motion.

IT is generally confeſſed of all Men, that all ſuch *Motions* in *Pictures*, as do moſt neerly reſemble the *Life*, are exceeding pleaſant, and contrarywiſe thoſe that which do fartheſt diſſent from the ſame, are void of all *gracious Beauty*, committing the like diſcord in *Nature*, which untuned ſtrings do in an *inſtrument*. Neither do theſe *motions* thus *lively* imitating *Nature* in *Pictures*, breed only an *Eye-pleaſing contentment*,

tentment, but do also performe the self same *effects*; which the *natural* do, for as he which *laugheth*, *mourneth*, or is otherwise *effected*, doth *naturally* move the beholders to the self same *passion*, of *mirth* or *sorrow*, so a *picture* artificially expressing the true *natural motions*; will (surely) procure *laughter* when it *laugheth*, *pensiveness* when it is *grieved* &c. And that which is more, will cause the beholder to *wonder*, when it *wondereth* to desire a *beautiful young woman* to his *Wife*, when he seeth her *painted naked*, to have a *Fellow feeling* when it is *afflicted*; to have an *appetite*, when he seeth it *eating* of *dainties*, to fall a *sleep* at the *sight* of a sweet *sleeping Picture*, to be *moved* and *wax furious* when he beholdeth a *battel* most lively represented, and to be stirred with *disdain* and *wrath* at the *sight* of *shameful* and *dishoneſt actions*, All which *points* are (in truth) worthy of no less admiration then those *miracles* of the *antient Musitians*, who with the variety of their *melodious harmony*, were wont to stir Men up to *wrath* and *indignation*, *love*, *warr*, *honourable attempts*, and all other *affections* as they listed; or those strange conclusions of the *Mathematical motions*, recorded of those undoubted wise Men, who made *statues* to *move* of their own accord, as those of *Dedalus*, which (as *Homer* writeth) came to the *battel* themselves; or *Vulcanus Tripodes* mentioned by *Aristotle*, or those *guilded Servitors* which walking up and down at the feast of *Farbas* the *Gymnosophist*, served at the *Table*, or those antient ones of *Mercury* in *Ægypt*, which spake, &c.

In which kind of *artificial motions*, *Leonard Vincent* was very *skilfull*, (who as his *Scholar Signior Francesco Melizi* the great *Limner* verifies) invented a certain conceited *matter*, whereof he used to make *Birds* that would fly into the *Air*, and made a most *artificial Lyon*, which being brought into

a *large Hall* before *Francis* the First *King* of *France* of that name, after he had a while walked up and down stood still opening his *Breast*, which was all full of *Lillies* and other *flowers* of *divers sorts*, at which *sight* the *King* and other *spectators* were *rapt* with so great *admiration* that they then easily believed, that *Architas Tarentinus* his *woodden Dove* flew, that the brazen *Diomedes*, mentioned by *Cassiodorus*, did sound a *Trumpet*, that a *Serpent* of the same metal, was heard to *hiss*, that certain Birds *sung*, and that *Albertus Magnus* his *brazen Head* spake to *St. Thomas* of *Aquine*, which he *brake*, because he thought it the *Devil*, whereas indeed it was a meer *Mathematical invention* (as is most manifest.)

But to return thither where I left, I am of Opinion *that insomuch as these* Motions *are so* Potent *in affecting our* Minds, *when they be most* artificially counterfeited, *we ought for our bettering in the* knowledge *thereof, to propose unto us the example of* Leonard Vincent *above all others: Of whom it is reported, that he would never* express *any* motion *in a* Picture, *before he had first carefully beheld the* Life, *to the end he might come as neer the same, as was possible: whereunto afterwards joyning* Art, *his* Pictures *surpassed the* Life.

This *Leonard* (as some of his *Friends*, who lived in his time have given out) being desireous to make a *Peece* wherein he would express certain *Clowns laughing* (although he never *perfected* it more, then in the First *draught*) he made choice of some *Clownes* for his *purpose*, into whose *acquaintance* after he had *insinuated* himself, he *invited* them to a *feast*, amongst other of his *Friends*, and in the *dinner*, while he entred into a *pleasant vain*, uttering such variety of *merry conceits*, that they fell into an exceeding *laughter* (though they know not the reason thereof, *Leonard* diligently observed all their *Gestures*, together with those *ridiculous*

lous ſpeeches which wrought this impreſſion in their *Minds*, and after they were departed, withdrew himſelf into his *Chamber*. And there *portraited* them ſo *lively*, that they moved no leſs *mirth* in the *beholders*, then his *jeſts* did in them at the *banquet*.

They add moreover that he took ſpecial *delight*, to behold the *Geſtures* of the condemned, as they were led to *Execution*, to the *end*, that he might mark the contracting of their *browes*, the motions of their *Eyes*, and their whole Body. In imitation whereof, I hold it *expedient* for a *Painter*, to *delight* in ſeeing thoſe which *fight* at *cuffs*, to obſerve the *Eyes* of *privy murtherers*, the *courage* of *wraſtlers*, the *actions* of *Stage-players*, and the *inticing allurements* of *curteſans*, to the *end* he be not to ſeek many *particulars*, wherein the very *Life* and *Soul* of *painting conſiſteth*, *wherefore I could wiſh all Men carefully to keep their* Brains waking, *which whoſoever ſhall omit his* invention (*out of doubt*) *will ſleep*, *ſtudying perhaps Ten Years about the* action *of one* Figure, *which in the end will prove nothing worth*, *whence all* famous inventors, *for the avoiding of ſuch* groſs defects, *have the rather ſhewed themſelves* ſubtile Searchers *out of the* effects *of* nature, *being moved thereunto by a ſpecial* delight *of often* ſeeing, *and continually* practizing *that which they have* preconceived, *ſo that who ſo keepeth this* Order, *ſhall unawares attain to ſuch an* habit *of* practice, *in* lively *expreſſing all* Actions *and* Geſtures, *beſt fitting his* purpoſe, *that it will become an other* nature.

And whoſoever ſhall diligently conſider *Cæſar Seſtius* his *admirable works*, wherein all the *actions* are moſt *naturally appropriated* to the *Subject*, will eaſily conclude that he trod in *Leonards ſteps*, and for this cauſe was he *highly eſteemed* of *Raphael Urbine*, unto whom they ſay he was wont *jeſtingly* to ſay often, that it ſeemed a very *ſtrange* thing unto him, that they two being ſuch neer *Friends*, in the *Art* of *Painting*, yet ſpared not

each other when they offended, a *ſpeech* ſurely well beſeeming *honeſt men*, albeit they lived together in ſuch *ſweet emulation*, which *humour* if it were to be found in theſe our *Dayes*, the World might be reputed *right happy*, but now *malicious envy* (to our *great diſadvantage*) taketh *place* inſtead thereof, *Miniſtring* Matter to *ignorant* and *abſurd people*, *inſolently* to *diſgrace* and *carp* at other Mens rare *perfections*.

Of the Neceſsity of Motion.

THe order of the *place* requireth, that I ſhould conſequently ſpeak of *Motion* it ſelf, namely with what *Art* the *Painter* ought to give *Motions* beſt fitting his *Pictures*, which is nothing elſe but a correſpondency to the *nature* of the *proportion* of the *forme* and *matter* thereof, and herein conſiſteth the whole *ſpirit*, and *life* of the *Art*, which the *Painters* call ſometimes the *fury*, ſometimes the *grace*, and ſometimes the *excellency* of the *Art*, for hereby they expreſs an evident *diſtinction* between the *living* and the *dead*, the *fierce* and the *gentle*, the *ignorant* and the *learned*, the *ſad* and the *merry*, and (in a Word) diſcover all the ſeveral *paſſions*, and *Geſtures* which Mans Body is able to *perform*, which here we term by the name of *Motions*, for the more *ſignificant* expreſſing of the *Mind* by an *outward* and bodily *demonſtration*, ſo that by this means *inward motions* and *affections* may be as well, (or rather better) *ſignified* as by their *ſpeech*, which is wrought by the *proper operations* of the Body, performing juſt as much as is delivered unto it from the *reaſonable Soul*, ſtirred up either unto *good* or *bad*, according to their *private apprehenſions*.

Which things, while all good *Painters* propoſe to themſelves, in their *works*, they expreſs ſuch *admirable ſecrets* of *Nature*, as we ſee, which being *moved* by

by that *stirring vertue*, which continually lying *hid* in the *hart*, is outwardly shewed *forth* in the Body; by extending her *branches* through the *exteriour Members*; in such sort, that they may also receive *motion*; hence spring those *admirable motions* in *Pictures*; which appear as *diverse* as the *passions* whence they have their *original*, are different, of which *point* somewhat shall be said in this *ensuing Treatise*.

Now the *perfect knowledge* of this *motion*, is (as hath been shewed) accounted the most difficult part of the *art*, and reputed as a *divine gift*. Insomuch, as herein alone consisteth the comparison between *Painting* and *Poetry*, for as it is required in a *Poet*, that besides the *excellency* of his *wit*, he should moreover be furnished with a certain *propension* and *inclination* of *will*, *inciting* and *moving* him to *versify*, (which the antient called the *fury* of *Apollo* and the *Muses*) so likewise a *Painter* ought, together with those *natural* parts which are required at his hands, to be furnished with a *natural dexterity* and *inborn slight* of *expressing* the *principal motions*, even from his *cradle*; otherwise it is a very hard (if not impossible) *matter*, to obtain to the absolute *perfection* of this *Art*.

The *truth* whereof, *experience* it self may teach us: Insomuch as there both have been, and are many excellent *Painters*, who for their extraordinary *skill* in the *art*, are most *highly* esteemed of all Men, as being able to make sweet *coloured pictures*, having their *loyns* and *joynts* in all points answerable to the *rules* of *proportion*, understanding *Anatomy* and painfully *lightned* and *shadowed*, but because notwithstanding all their *care* and *industry* in this behalf, they could never be so *happy*, as to attain unto this *faculty*. They have left their *works* to the *view*, and *hard censure* of *posterity*, only because they expressed *unsuitable* and *lame Gestures*,

in their *Pictures*, which they had *stolen* out of other Mens *inventions*: namely, out of theirs who were *naturally indued* with that *grace*, and perswading themselves that these would very well serve their turns: they *imagined* such *Actions* and *Gestures* in their own *Pictures*, as being used besides the *purpose*, for which they were First *invented*, could not be *approved* for *good*, because they *offended* in *divers circumstances*, wherefore those *unfortunate painful Men* (who notwithstanding in some other *parts* of the *art*, be sufficiently *skilful*) although they can *imitate* the *Actions* and *Gestures* of other *inventors*, yet shall they never be able to make a commendable *History*, because they be *naturally disfurnished* of that *inborn facility* and *inclination*.

Now on the contrary *part*, I deny not, but those who are furnished with *natural invention*, may want that *patience* in their *work*, which the others have, which *propriety* ariseth from the multitude of their continual *inventions*, and stirring *apprehensions*: Insomuch, that before they can throughly *finish* or *compleat* any one *Body* or *Action*, infinite others arise in their *fantasie*, so that by reason of the great *delight* they feel in their *invention*, they cannot have the *patience* to finish any thing they take in hand.

But the most *absolute* and *compleat Painters* (who are not so much inclined by *nature*, as perfected by *art*) endeavour to choose out the best *Actions* for every *purpose*, in restraining the *luxurious fury* of *nature*, by that *deliberate discretion* which they have in their *Idea*, by the *benefit* whereof, they *finish* their *Pictures* with *delight* and *contentment*, alwayes *expressing* in each *member*, a certain hidden *resemblance* of the *princial motions*, wherefore these alone carry away the *commendation* of the *profession* which is not granted to those *furious mad-caps*, by reason of their *impatiency*, nor yet unto the *former*

over

over *diligent plodders*, because they have not the *natural knowledge* of these *motions*, and therefore cannot *express* them in their *works*, as those *natural inventors* will do, with *Three* or *Four strokes*, wherefore they become *inferiour*: so that as well the *one* as the *other*, must needs give place to the *inventor*, who wisely *joyneth* the *industry* of *art*, with the *gift* of *nature*.

Notwithstanding, I am of *Opinion*, that it is possible to *attain* unto this so *excellent* a *faculty*, (though perhaps not with that *special eminency* of *natural facility*,) as by *industrious study* in the *knowledge* of these *motions*, and the *causes* whence they proceed. For from hence a Man may easily attain to a *certain understanding*, which afterwards putting in *practice* with *patience*, together with the other *points*, he may undoubtedly *prove* a *judicious inventor*, who never had any extraordinary *natural inclination*, my meaning is, that such an *inventor*, as guideth himself by *understanding*, shall attain to better *perfection* then the other, who is *naturally* indued with the *dexterity*, without *industry* and *patience*: for example, if a Man shall diligently peruse the whole *History* of *Christ*, out of doubt he shall gather the *true Idea* and *Method*, how he ought to represent the *motions* of *Christ*, the *Apostles*, the *Jews*, and all the *rest*, who had any *part* in that *cruel Tragedy*, so sufficiently, that the *Mind* of the *beholder* shall be no less *moved* to *pitty*, *tears* and *sorrow*, at the *sight* of the *picture*, then Men are usually at the reading of the *History*; so that by this means he shall shew in *Judas*; *violent*, *offensive*, *brutish*, *buisie*, and *distempered motions*, and in *Christ* being *full* of *patience*, *remiss*, and *gentle*, representing in *him*, as in a *glass* that *singular humility* and *patience*, wherewith *he reconciled* us unto *his Father*; All which, notwithstanding they may be sufficiently drawn out of the reading of the *History*, yet for more *ease*

ſake, they may be taken from the *accidental examples* in the *living*, *imitated* with great *felicity*, and afterwards *induſtriouſly* and *artificially* expreſſed, by cauſing the *abundance* of his *diligence* to *appear*, in ſtirring up *affections* of *piety* and *ſorrow* (as in a *peece* of the *paſſion*) or other *affections*, as the *Hiſtory* he hath in hand, shall require.

Now concerning the way *and* manner *how theſe* Actions *are to be given*, *according to the diverſity of* Paſſions *and* Affections, *which at ſundry* times, *upon ſeveral* occaſions *may move* Mens Minds; *I hope in this Treatiſe to ſhew* evident examples, *although they be ſomewhat* hard *and drawn from the* ſecrets *of* natural Philoſophy, *a thing which might ſeem to require a* Man *of* riper Years, *then ſo* young *a* Man *as my ſelf*, *wherefore I muſt crave* pardon *for breaking the* bounds *of* Modeſty, *in undertaking the handling thereof*, *had I not been* prompted *unto it by the* Painters, (*it being of ſo great* uſe *and* importance) *howbeit*, *If neither in that which hath been already ſpoken*, *I have* ſufficiently *laied open this* point, *nor hereafter ſhall be* able *to* deliver *the* Method fully, *which I promiſed*, *yet notwithſtanding this my* pains *is not to be* contemned, *inſomuch as it will*, (*at the leaſt*) prepare *an* eaſie, free *and* Methodical paſſage *for every Man to* exerciſe *his* Wit, *which muſt needs prove a moſt* ſure *and ready* way; *inſomuch as all the moſt* Famous Painters *have been directed thereby*, *who when they went about to* counterfeit *any* ſtory, *Firſt conceived the* general forme *thereof*, *and then gave to each* Figure *his* peculiar Actions, proportioning, diſpoſing, *and* guiding *them by* diſcretion, *accompanied with* natural felicity.

Now amongſt the *worthy Painters* who excelled herein, *Raphael Urbine*, was not the leaſt, who performed his *Works*, with a *Divine kind* of *Majeſty*, neither was *Polidore* much behind him in his *kind*, whoſe *Pictures* ſeemed as it were *paſſing furious*, nor yet *Andreas*

Monta-

Montagnea whose vain shewed a very laborious *curiosity*: Nor yet *Leonard del Vincent*, in whose *doings* there was never any *errour* found in this *point*: Whereof amongst all other of his *works*, that admirable last supper of *Christ* in *Refect. St. Mariæ de gratia in Milane*, maketh most evident *proof*, in which he hath so *lively expressed* the *passions* of the *Apostles minds* in their *countenances*, and the rest of their *Body*, that a Man may boldly say, the *truth* was nothing *superiour* to his *representation*, and need not be afraid to reckon it amongst the best *works* of *Oyl-painting*, (of which kind of *painting John Van Eyck* of *Maesyck* born in the Year 1366. was the first *Inventor*) for in those *Apostles*, you might *distinctly* perceive *admiration*, *fear*, *grief*, *suspition*, *love* &c. all which were sometimes to be seen together in one of them, and *Finally* in *Judas* a *Treason-plotting countenance*, as it were the very true *counterfeit* of a *Traitor*, so that therein he hath left a *sufficient argument* of his rare *perfection*, in the *true understanding* of the *passions* of the *Mind*, *exemplified* outwardly in the Body, which because it is the most necessary *part* of *painting*, I propose (as I say) to *handle* in this present *Treatise*.

I may not omit *Michael Angelo* in any case, whose *skill* and *painfulness* in this *point* was so great, that his *Pictures* carry with them more *hard motions*, expressed after an *unusual manner*; but all of them tending to a *certain stout boldness*. And as for *Titian* he hath *worthily purchased* the name of a greater *Painter* in this *matter*, as his *Pictures* do *sufficiently* witness; in each whereof, there *shineth* a certain *moving vertue*, seeming to *incite* the *beholder*, unto the *imitation* thereof, of whom this saying may be well *verified*, that he was beloved of the *World*, and *envied* of *nature*.

Finally, *Gaudentius* (though he be not much known) was *inferiour* unto *few*, in giving the *apt motions* to the

Saints & *Angels*, who was not only a very *witty painter*, as I have elsewhere shewed, but also a most *profound Philosopher* and *Mathematician*, amongst all whose all *praise worthy works*, (which are almost *infinite*, especially in this *point* of *motion*) there *divers Mysteries* of *Christs passions*, of his *doings*, but *chiefly* a *crucifix*, called *Mount Calvary* at the *Sepulchre* of *Varasto*, where he hath made admirable *Horses* and *strange Angels*, not only in *painting* but also in *plaistick*, of a *kind* of *earth*, wrought most *curiously* with his own *hand*, *di tutto relievo*, through all the *Figures*.

Besides in the *Vault* of the *Chappel* of *St. Mary de gratia* in *Milane*, he hath *wrought* most *natural Angels*, I mean especially for their *actions*, there is also that *mighty Cube* of *St. Mary de Sorono* full of *thrones* of *Angels*, set out with *habits* and *actions* of all *sorts*, carrying *diversity* of most *strange Instruments* in their *hands*, I may not conceal that *goodly Chappel*, which he made in his *latter time*, in the *Church* of *peace* in *Milane*, where you shall find small *Histories* of our *Lady* and *Joachim*, shewing such *superexcellent motions*, that they seem much to *revive* and *animate* the *spectators*.

Moreover the *story* of *St. Roccho*, done by him in *Vercelli*, with *divers* other *works* in that *City*; although indeed all *Lombardy* be *adorned* with his most rare *works*, whose common saying concerning this *Art* of *motions*, I will not conceal; which was, that all *painters delight* to steal other Mens *inventions*, but that he himself was in no great *danger* of being *detected* hereafter. Now this great *painter*, although in *reason*, he might for his *discretion*, *wisdome*, and *worth* be compared with the above named in the First *Treatise*: Yet notwithstanding is he omitted by *George Vasary*, in his *lives* of the *Famous Painters*, *Carvers*, and *Architects*, an argument (to say no worse of him that he *intended* to *eternize* only

his

his own *Tuscanes*, but I proceed to the *unfolding* of the *original causes* of these *motions*: And First for our *better understanding*, I will begin with those *passions* of the *mind*, whereby the *Body* is moved, to the *performance* of his *particular effects*.

Of the passions of the Mind, their original and difference.

THe *passions* of the *mind*, are nothing else but certain *motions*, proceeding from the *apprehension* of some thing, now this *apprehension* is *Threefold*, *sensitive*, *rational*, and *intellectual*, and from these *Three*, there arise *Three passions* in the *mind*, for sometimes we follow *sensitive apprehensions*, and then we consider *good* and *evil*, under the shew of that which is *profitable* or *unprofitable*, *pleasant* or *offensive*; and these are called *natural affections*, sometimes we pursue *rational apprehensions*, considering *good* and *evil* in manner of *virtue* or *vice*, *praise* or *dispraise*, *honesty* or *dishonesty*; and these are *reasonable affections*, sometimes we imbrace *apprehensions intellectual*, regarding *good* and *evil*, as *true* and *false*, and these are *intellectual apprehensions*.

Now the *inferiour powers* of the *mind* are of two *sorts*, either *desire* or *anger*, and both of these *respect* that which seemeth *good* or *bad*, *diversly*, for the *desiring part* either considereth *good* and *bad absolutely*; and so it causeth *love* and *liking*, and contrarywise *hatred*, or else it *respects* good as *absent*, whence ariseth *desire* or *longing*, or else *evil* as *absent*, but at *hand*, and so it breedeth *fear*, *dread*, &c. or both of them as *present*, and so from the First cometh *joy* and *delight*, from the latter *heaviness* and *grief*, the *angry faculty* considereth *good* and *evil*, as it is *easy* or *hard* to be *attained* unto, or *avoided*; whence springeth sometimes *confidence* and *hope*, sometimes *audacity*, sometimes *distrust*, and so *desperation*, &c. some-

times it is moved to *revenge*, and that is in regard of *evil* paſt, as *injury* or *offence* received, and ſo it breedeth *anger*, by that which hath hitherto been ſpoken it is *evident*, that there are Eleven *paſsions* or *affections* in the *mind*, which are theſe, *love*, *hatred*, *deſire*, *fear*, *joy*, *ſorrow*, *hope*, *diſpair*, *audacity*, *timerouſneſs* and *anger*, from which there do conſequently *ariſe* ſo many ſorts of *actions* in the *art*, as there may be *affections* expreſſed in Mens *Bodies*, wherefore we ought carefully to obſerve the *motions* which are *outwardly* expreſſed, in ſuch *ſort*, as they do *manifeſtly point* to the *roots*, whence they *ſpring*, and *diſcover* the *cauſes* from which they *proceed*, *diſtributing* them and *diſpoſing* them accordingly in the *Bodies*, or *Phyſiognomies* which whoſoever shall *fail* in, shall (*queſtionleſs*) wholly pervert the *Order* of *things*, confounding the *Beauty* of *Hiſtories*, whether they be *Fables*, or other *Inventions*, which are to be *painted*.

How the Body or Phyſiognomy is altered by the Paſsions of the mind.

IT is a *clear caſe*, that the *mind* according to the divers *affections* (whereof I ſpake before) by reaſon of the *apprehenſions* both *ſenſible* and *imaginative*) doth diverſly *change* and *alter* the *Body* with *ſenſible alterations*, by varying the *accidents* thereof, and producing ſundry *qualities* in the *members*, ſo that in *mirth*, the *ſpirits* are *enlarged*, in *fear* they are *contracted*, in *baſhfulneſs* they fly up to the *Brain*, again, in *joy* the *heart* is extended by *degrees*, in *diſpleaſure* it is drawn in by *little* and *little*, as likewiſe in *anger* and *fear*, but ſudden *anger* and *deſire* of *revenge* procureth *heat*, *bluſhing*, *bitter taſt*, and the *flux* of the *Belly*, *fear* brings *coldneſs*, the *panting* of the *heart*, the *failing* of the *voice*, and *paleneſs*, *heavineſs* cauſeth *ſweating*, and a *blewiſh paleneſs*, *mercifulneſs* breeds a certain *heavineſs*, which oftentimes hurteth him that is moved

to *mercy*, which appeares ordinarily in *lovers*, in whom there is such a *Sympathy*, that whatsoever one *indureth*, the other likewise *suffereth* the same; *Anxiety* causeth *dryness* and *blackness*; *desire* and *love*, breeds sundry *colours*, sometimes *red*, sometimes *pale*, as we daily see in *lovers*, especially in their meetings.

Now all these *passions* when they be exceeding *vehement* do sometimes bring *Death*, which happened to *Sophocles* and *Dionysius* the *Sicilian Tyrant*, when he received the News of a *desperate victory*; the like hath befallen *divers others* through *heavines* and sundry other *mishaps* have proceeded from the like *passions*, when they assaulted *Mens minds*, whereof we have *divers examples* in *stories*, which I mean not to *stand* upon as being a thing more *curious* then *necessary* to our *purpose*; only I will *shew*, of what *power* and *efficacy*, *fierce wrath* joyned with a *magnanimous audacity* can do, by the example of *Alexander* the Great, who being overmatched by his *Enemies* in *India*, was seen to *reak* forth from his *Body*, *fire* and *light*, the like whereof we read of the *Father* of *Theodoricus*, who by the like *vehement effect*, breathed out of his *heart*, as from a *burning furnace*, *fiery sparkles*, which flying forth *shon* and made a *sound* in the *Air*. *Thus therefore we* represent *all these* passions *in a* story, *together with their* convenient *and* proper Motions, *we set forth that great variety which worketh such* delight *and* pleasure, *that it* alloureth *our* Minds *unto it, with a sweet kind of* compulsion, *no otherwise then most delectable* Musick *enchaunteth the* Eares *of the* Hearers, *which (as they write) is so forcible that* way, *that a certain* Musitian *boasted, that by the* power *of his* notes, *he caused Men to grow* furious, *and afterwards come to themselves again.*

Of the Motions procured by the Seven planets.

AMongst the Seven *Governours* of the *World* (which *Merc: Trismegistus* calleth *Planets*, as *Saturn*, *Jupiter*, *Mars*, *Sol*, *Venus*, *Mercury* and *Luna*) the *chief* and *principal* is *Saturn*, which hath also received divers names of *antiquity*, as *Heaven*, *Sith-bearer*, the *father* of the *gods*, *Patrone* of *time*, and from his *effects* here below: *wise*, *intelligent*, *ingenious*, the *seed* of *great profundity*, the *Auctor* of secret *contemplation*, the *imprinter* of *weighty thoughts* in Men, a *destroyer* and *preserver*, the *Subjector* of *power* and *might*, the *keeper* of *hidden things*, and the *Auctor* of *finding* and *loosing*.

His *influences* are partly *good*, and partly *bad*, according to the *disposition* of him that receiveth them, as weeping, *melancholly* &c. he causeth religious *actions*, as to *bow* the *knee*, look down upon the *earth*, *pray*, and such like *motions* of the *Breast* and *Face*, common to those which *pray*, or other *austere* and *satyrical* Fellows, with *Head* declining, *Eyes* fixed on the *earth*, wasting himself with a furious *silence*, and examining his own *speech*, with hanging *lips*. Moreover, he causeth a *complexion* of *colour* between *black* and *yellow*, *meager*, *distorted*, of an hard *skin*, eminent *veyns*, an *hairy Body*, small *Eyes*, *Eye-brows* joyned together, a *thin beard*, *thick lips*, with *looks* cast down, an *heavy gate*, *enterfairing* as he goeth, besides he makes a Man *subtil*, *witty*, a *way-layer*, and *murtherer*: Now according to this *forme* of *Body*, and these *motions*, you may frame any *Body* subject unto *Saturn*, that is of the *temper* and *complexion* answerable to the *nature* of *Saturn*, so that by that which hath been said concerning this *Planet* in particular, as also by that which shall be spoken severally of the rest,

reſt, we may gather one general *Rule*, as touching the *Art* of *motions* in our *Pictures*, as well in reſpect of the *quality* of the *humour*, as of the *motions* themſelves, &c.

Jupiter.

The Second *Planet* is *Jupiter*, ſo named of the *Latines*, as you would ſay *Juvans Pater*, the Father of *beneficence* and *liberality*, he is otherwiſe called of the *Poets*, *magnanimous*, the *thunderer* and *lightner*, *invincible*, *altipotent*, *magnipotent*, *good natur'd*; *fortunate*, *ſweet*, *pleaſant*, the beſt *well-willer*, *honeſt*, *neat*, of a *good gate*, *honourable*; the *author of mirth* and *judgement*, *wiſe*, *true*, the *revealer* of *truth*, the *chief judge* exceeding all the *Planets* in *goodneſs*, the *beſtower* of *riches* and *wiſdome*: the *diſpoſitions* and *affections* proceeding from this *Planet* are, a *merry* and *ingenious countenance*, *actions* of *honour*, *ſhaking* of *hands*, after the manner of thoſe which entertain *ſtrangers*, *commending* and *ſpeaking* Men *fair*, with *cap* and *knee*, lifting up the *head* as thoſe uſe which pray.

Concerning the *complexion*, *diſpoſition* and *feature* of the Body, he makes a Man of a mixt *ſanguine*, betwixt *white* and *red*, of a *delicate* Body, *good ſtature*, either *bald* or elſe *high-foreheaded*, *Eyes* ſomewhat *big*, *ſhort noſtrels* and *unequal*, the *cheek-teeth* ſomewhat *big*, a curled *beard*, *deceitful* and *fair* conditioned: All which correſpondencies betwixt the *qualities* of the *mind*, and the *conſtitution* of the Body, together with their exteriour *affections*, if the *Painter* ſhall with *judgement conſider* and *obſerve*, they will breed both *delight* in him, and eſtimation to his *Art*, teaching him farthermore the *true* difference between an *honeſt man* and a *varlet*, one that is *merry*, and a *melancholly* Fellow, a Man of his *hands*, and a *coward*, and ſo forth, according to all thoſe *qualities* naturally proceeding from *Jupiter*, &c.

Mars.

The third *Planet* is *Mars*, and by the *Poets* is alſo called *Mavors*, the *god* of *warr*, *bloudy*, *armipotent*, *enſifer*, *magnanimous*, *bold*, *inconquerable*, full of *generoſity*, of *invincible power*, of *impetuous preſence*, *unreſiſtable*, a *ſubverter* of the *ſtrong* and *mighty*, and a depoſer of *Kings*: he is the *Lord* of *heat*, *burning* and *power*, the *Planet* of *bloud*, *brawls* and *violence*, *incenſing*, *contentions* and *bold ſpirits*, and (in a word) broching all *diſordered*, *inconſiderate* and *heady actions*: his *Geſtures* are *terrible*, *cruel*, *fierce*, *angry*, *proud*, *haſty* and *violent*: he cauſeth Men to be of a *red complexion*, a *deep yellow hair*, *round viſaged*, *fiery Eyes*, a *cruel* and *fierce countenance*, by reaſon of his intemperate *heat*; inſomuch that he is reputed *hot* and *dry*, in the higheſt degree, bearing ſway over *red choller*.

Sol.

The Fourth *Planet* is *Sol*, which hath divers other *appellations* as *Phœbus*, *Apollo*, *Titan*, *Pean*, *Horus*, *Oſiris*, *Arcitenent*, *Fiery*, *Golden flamiger*, *Radiant*, *Igni-comus*, the *Eye* of the *World*, *Lucifer*, *Multifidus*, *Omnipotent*, the *Prince* of *Starrs*, the *grand Seignior*, he is of *good Nature*, *fortunate*, *honeſt*, *neat*, *prudent*, *intelligent*, *wiſe*, the *governour*, the *beſtower* of *life* upon all Bodies indued with *Soul*, obſcuring the *light* of the other *Starrs* with his exceeding *brightneſs*, and yet imparting unto them all that *light* they have, whence in reſpect of the *night* he is called *Dyoniſius*, and of the *day Apollo*, as you would ſay *pellens malum*, the *diſpeller* of *evil*, wherefore the *Athenians* called him ἀλεξίκακον, &c.

He was named *Phœbus* by reaſon of his *Beauty*, and *Vulcan* becauſe of the violent *heat* he ingendereth in thoſe *Bodies*, over which he hath *dominion*, and *Sol* for the *preheminence* of his *light*; wherefore the *Aſſyrians* named him *Adad*, which *ſignifyeth alone*, the *Hebrews Shemeſh*; the *Motions* proceeding from him are *couragious*,

gious, *honourable*, *majeſtical*, *conſiderate* and *wiſe*; the *colour* and *hew* which he giveth is *browniſh*, betwixt *yellow* and *black* mixed with *red*, cauſing thoſe which are ſubject to him to be of a low *ſtature*, yet of a comely *perſonage*, *bald*, *curled*, with *yellowiſh Eyes*, touching the affections of their *mind*, they are *conſiderate*, *prudent*, *truſty*, *vain glorious*, and *magnanimous*.

Venus.

The Fift *Planet* is *Venus*, whoſe *denominations* are likewiſe divers, expreſſed by variety of *Epithites*; as *chief*, *mild*, *fair*, *bright*, *white*, *pleaſant*, *powerful*, *fruitful*, the *Mother* of *love* and *beauty*, the *progeny* of *ages*, the Firſt *Mother* of *Man*, she that Firſt joyned both Sexes together in *love*, the *Queen* of all *joy*, *friendly*, *merciful*, ever bountiful to Mankind, embracing all things with her *vertue*, humbling the *ſtrong* and *lofty*, and exalting the *baſe* and *weak*, and directing all things; they call her *Aphrodite*, becauſe she is ſaid to be born of the *froth* of the *Sea*, and *Phoſphorus*, or *Lucifer*, when she appeareth before the *Sun* in the *Eaſt*, and *Heſperus* when she followeth the *Sun*, her *motions* are *pleaſant* and *mirthful*, being given to *ſports*, *dalliance*, *dancing*, and *embraceings*, she makes the countenance *amiable*, *pleaſant*, and *merry*, working a kind of *whiteneſs* in the Body, by reaſon of her *cold* and *moiſt nature* (reſembling the *water* which when it is *congealed* and *frozen*, looketh white) yet prettily mixed with *red*; she cauſeth Men to be *proper* of *Body*, *fair* and *round viſaged*, with *black rowling Eyes*, *brown hair*, of a *lovely* diſpoſition, *gentle*, *bountiful*, *courteous*, *affable* and *gracious*.

Mercury.

Mercury is the ſixt *Planet*, and of the antient is called the Sonne of *Jupiter*, the *Herauld* and *prolocutor* of the *gods*, the *Græcians* call him σιαβὸς, which ſignifyeth *ſhining*, *ſerpentiger*, *caducifer*, *light-foot*, *eloquent*, *gainful*, *wiſe*,

reasonable, *strong*, *potent* as well on the *good* as on the *bad* part, the *notary* of the *Sun*, *Jupiters herauld*, having commerce with the *supernal* and *infernal gods*, *male* with the *male*, and *female* with the *female*, most *fruitful*, an *Hermaphrodite*: *Lucian* calleth him the *Umpire* of the *gods*, others *Hermes*, or the *interpreter*, and the *expounder* of the *misteries* of *nature*; his *motions* are *inconstant*, *slippery*, *mutable*, *strong*, *lively*, *prompt* and *ready*, he causeth a complexion neither very *white*, nor very *black*, a *long visage*, an *high forehead*, small *Eyes*, not altogether *black*, an even *Nose* and something *long*, *thin beard*, *long* and *slender fingers*: the operations which he causeth in the *minde* are *witty*, *subtile*, *busy*, *sharp*, *wary*, and *fruitful*.

Luna.

The Seventh and last *Planet* is *Luna*, of the antients called *Phœbe*, *Diana*, *Lucina*, *Proserpina*, *Hecate*, *Menstrena*, *Triformis*, *Nocti Luca*, *wandring*, *silent*, *double horned*, *safe*, *night walking*, *cornigera*, *Queen* of *Heaven*, the first of the *goddesses*, *Queen* over mens *minds*, *Mistris* of all the *Elements*, she to home the *stars* have relation, and the *Elements* are in subjection, at whose beck the lightnings *shine*, and seeds *spring*, the *Mother* of *corn*, *Sister* of *Phœbus*, the transporter of *light*, from one *planet* to another; imparting her *light*, to all the other *starrs*, and restraining their divers courses; the *Lady* of *raine* and *moisture*, the bestower of *riches*, the *Nurse* of mankinde, the *ruler* of all *states*, *pittiful*, *merciful*, the preserver of men both by *Sea* and *Land*, mittigating the *tempests* at *Sea*, the subduer of *carnal* affections, *Queen* of the *world*, and vanquisher of *Hell*, whose *Majesty* the *birds* of the *aire*, the *beasts* of the *fields*, the *serpentes* in the *rocks*, and *caves* of the *earth*, and the *fishes* of the *sea* doe reverence; finally the *Enemie* to *Thieves* and *Murtherers*.

Her *motions* are *moveable*, *beneficent*, *childish*, *simple*, *oblivious*,

livious, and *curious*; she makes a man of a *pale complexion*, intermingled with *red* of a comely *stature*, *round visaged* and marked *blackish eyes*, *beetle browes*, *tender* and *soft flesh*, the *Qualities* of whole *minds* are *satiability*, *facility*, *pensiveness*, *affection* of *news*, no ready *gift* in discoursing.

And from hence springeth the whole variety of all the other *motions* besides the above named of the *Elements*, all which serve for *tokens*, and *signes* whereby we may the better attain to the *knowledge* of the *natures* of *people*, and their *affections* and *passions*, answerable to the *vertue* and *influence* of the *Planets*, which the antient *Mathematitians* have by long experience observed, neither did those excellent *Motistes Al. Magnus*, *Abbas Tritemius*, and *Rai*: *Lullius* consider them to any other *end* and purpose. Whosoever therefore, shall be throughly possessed with these things, imprinting them well in his *mind*, and proceeding according to their direction in his *Pictures*, may assure himself that his *works* will prove not only *commendable*, but even exceeding *admirable*, expressing in them *sadness* by *Saturn*, by *Jupiter contentment*, by *Mars cruelty*, by *Sol magnanimity*, by *Mercury quickness* of *spirit*, by *Venus love* and *wantonness*, and by *Luna humanity* and *gentleness*; exemplifying moreover according to these Observations, these and such like *effects*, united together in the *compounds*; all which the Antient *Masters*, carefully observed, (as may appear by their *works*) which sufficiently declare, that they both understood these *mysteries*, and took great *pains* in expressing them, whence it is most *apparent*, that the *knowledge* of these things, cannot be attained unto, by the *mere practice* of *Painting*, but by the earnest *study* of *philosophy*, wherewith the Antient *Painters* were sufficiently furnished; and hence it is, that *Michael Angelo*

of late Years, being very skilful in these *matters*, gave to the *Devils* in his last *judgement* in the *Vaticane*, not only the *actions* and *gestures* of *Angels* and *nimble* and *active* Men, together with other earthly *ornaments*, but also divers other *looks* and *countenances*, most suitable to their wicked *intents*, as in his own discretion he thought fittest; whence we find *Charon* and the other *Devils*, to have several *countenances*, though all of them *dreadful* and *malicious*, in which point *Leonard Vincent* was much renowned, and the other Five mentioned in the Second Chapter of this *Treatise*, who were the very *light* and *direction* of all the other good *Painters*, whom I therefore pass over, because they are recorded in the *lives* of the *Painters*, who were reputed little inferiour to *Michael Angelo*.

How all the motions may accidently befall any man though diversly.

HAving hitherto discoursed of the *motions* arising from the *Elements*, the *humours* and the *Cœlestial bodies*, as also how they differ each from other, according to their several *operations* in men, and their *various effects*; it remaineth that I should now speak in particular of certaine *principal properties* of these *motions*, taking *natural examples*, (as my manner is) and applying them to the *Planets*, from whence this variety of *effects* and *influences* descends, which particularity of *motions* if it shall be expressed, it will discover all sorts of *passions* of the *mind* in each *Body* or *Physiognomy*, but because each man is *subject* to some one of the *Planets*, and therefore is more especially inclined to some one *affection*, it will not be amiss to shew how upon occasion any *affection* whatsoever may be stirred up in a Man of any *condition*, or *constitution*; the *manifestation* whereof, riseth wholly from the Five *Senses*, as the *instruments* whereby

the

the *objects* be apprehended: as by the *Eye* we see that which is *comely* and *undecent*; by the *Ear* we hear *sounds pleasant* and *unpleasant*, as *praise* and *dispraise*; by the *Nostrils* we smell *sweet* and *stinking*, *strong* and *sharp savours*, by the *taste* we discern *sweet*, *sharp*, *unsavoury*, *thick*, *salt*, *stiptick*, *virulent*, *bitter*, *fat*, *strong*, *unpleasant*, and (as *Aristotle* saith) *hard* and *soft*: Finally by the *feeling*, we touch *cold* and *hot*, *moist* and *dry*, as also *sharp*, *light*, *slippery*, *heavy*, *hard*, *soft*, *gross*, *slender* and *such like qualities*, from whence all *actions*, whereunto any kind of *Body* is *subject*, are caused, though more abundantly, and more apparently in some, then in others, whence we are given to understand, that as these qualities are distinct between themselves, and are severally applyed to the *Planets*, so likewise the *affections* proceeding from them do vary, accordingly as the *senses*, *apprehensions* and *passions*, together with their *objects*, viz. *colours*, *sounds*, *smels*, *tasts* and *matters* do differ. *The Five Senses.*

Now although there be but one particular *instinct* in each private Man, which inclineth him to *good* or *evil*, whereunto that Free *Governour* and *Arbiter* of his *affections* most *naturally* learneth, anst from whence all his ordinary *actions* proceed, notwithstanding there is no *impediment* why a Man may not be affected *diversly*, by any of the exteriour *senses* (the ordinary *instruments* of all our operations) by framing in his *mind*, *passions* answerable to the *object* apprehended by his *senses*, and so cause such like Actions to break forth in him, as be *repugnant* to his particular *instinct*, the truth whereof we read in *David* King of the *Hebrews*; who was *lasciviously* affected, when from the top of his *Pallace*, he beheld *Bathsheba*, bathing her self *naked*; and at the same *instant* was stirred up unto *cruelty* in commanding *Urias* to be *slain*, although he were *natu-*

rally both a moſt *continent* and *clement Prince*. Again his Sonne *Solomon* the *Wiſe*, was ſubdued by his *ſenſe*, and bewitched by the *inticings* of *Concubines* and *Idolaters*, things much abhorrent from the Inſtinct of his *nature*: And thus in peruſing of *Hiſtories*, we ſhall find how divers moſt *valiant Princes*, have upon occaſions proved *faint hearted*, and been ſtained with *covetouſneſs*, many pittyful Men been given to *cruelty*, religious Men to *revenge* and *malice*, chaſt Men to *luxury*, ſtout Men to *cowardice*, &c. obſerving moreover the alteration of *mirth* into *ſorrow*, *lamentation* into *laughter*, *covetouſneſs* into *liberality*; which I therefore omit, becauſe we daily ſee lively *examples* of *people* ſucceſſively affected with ſundry *vices*, as *rapines*, *grief*, *love*, *diſhoneſty*, *theft*, *murder*, *hatred*, *revenge*, *trechery*, *tyrany*, *inſolency*, &c. and contrary-wiſe with *religion*, *mercy*, *loyalty*, *clemency*, *liberality*, *honeſty*, *victorious*, deſire of *honour*, &c. as *Thieves* being ashamed to lay themſelves open before company, for *fear* of being diſcovered, will make a *fair ſhew* of true Men; and *curteſans* and *light Houſ-wives*, in the preſence of other grave *Matrons*, will bare the *countenance* of very *honeſt women*, concealing their *habitual naughtyneſs*, for Fear of the *diſgrace* and *puniſhment*, which would otherwiſe enſue; and *fellones* to avoid the *danger* of the *halter*, will take upon them the *habit* of *honeſt* and *civil* Men.

Hence then the *Painter* may learn how to expreſs not only the *proper* and *natural motions*, but alſo the *accidental*, wherein conſiſteth no ſmall part of the *difficulty* of the *Art*, namely in repreſenting *diverſities* of *affections* and *paßions* in one Body or *Face*: a thing much practized, by the *antient Painters* (though with great difficulty) who ever endeavoured to leave no part of the *Life* unexpreſſed. It is recorded that *Euphranor* gave ſuch a touch to the counterfeit of *Paris*, that

therein

therein the beholder might at once collect, that he was *Umpire* of the Three *goddesses*, the *courter* of *Helena*, and the *slayer* of *Achilles*, and of *Parasius* the *Ephesian*, that he *painted* the *Idol* of the *Athenians* in such sort, that he seemed *angry*, *unjust*, *inconstant*, *implacable*, *gentle*, *merciful*, &c. again we read how *Theon* represented in *Orestes*, *fury* and *grief* mixed together; and of another who resembled in *Ulysses* a dissembling *patience*: as also of *Aristides* the *Thebane*, who (in the Person of a wounded *Woman* giving her *child suck*) expressed *pain*, and *fear* so *lively*, that it is hard to say whether she were more *pained* with the *sense* of her *wound*, then *afraid*, least her *child* lacking *milk*, should suck *bloud*; who also is reported to have been the First that began to represent these *perturbations* of the *Mind*, and was afterward followed of the other *Painters*, as a guide herein, as it was once by chance found upon a small earthen *head* of *Christ* in his *Child-hood*, made by *Leonard Vincent* himself; wherein you might evidently perceive, the *simplicity* and *innocency* of a *Child*, accompanyed with *understanding*, *wisdome*, and *Majesty*: and although it were the *countenance* of but a *young* and *tender Child*, yet it seemed to shew forth a kind of *sage antiquity*, much to be admired.

Of divers other necessary Motions.

BEsides the *Motions* already declared at large, for the better understanding of such other as might hereafter serve for our *purpose*, it is to be observed, that there are certain others of no small *importance*, which are to be referred unto that which is most comely, and agreeable to Mans Body, as well in respect of such *effects* as proceed from the same; as also in regard of the *times* and *seasons*, together with

the conſideration of the *objects*, offering themſelves to our *ſenſe*, for the better attaining whereof, we muſt in all the *Actions* and *Geſtures*; make choice of the *chiefeſt* and moſt *principal*, ſearching them out moſt *diligently*, and deducing them from the *circumſtances*, which are found in the part to be repreſented, as *Leonard Vincent* did in the *Cartone* of St. *Anne*, which was afterwards tranſported into *France*, and is now to be ſeen in *Milane*, with *Aurelius Lovinus* a *Painter*, in the border whereof, there are many *draughts*, expreſſing the great *joy* and *mirth* which the *Virgin Mary* conceived, when she beheld ſo goodly a *Child* as *Chriſt* born, conſidering with her ſelf that she was made worthy to be his *Mother*: and likewiſe in St. *Anne*, the *joy* and *contentment* which she felt, ſeeing her *daughter* become the *Bleſſed Mother* of *God*.

Vide George Vaſari della pittula capib.

Moreover in that Piece which is to be ſeen in the *Chappel* of the *conception* in St. *Francis Church* at *Milane*, where you shall ſee how St. *John Baptiſt* kneeling with his *Hands* together, *bowed* towards *Chriſt*; which was an *action of obedience*, and *Child-like reverence*, and in the *Virgin*, a *geſture of chearful contemplation*, whileſt she beheld theſe *actions*; and in the *Angel*, an *action of Angelical Beauty*, in conſideration of the *joy* which was to betide the *world* by this *myſtery*; in *Chriſt* as yet a child *divinity* and *wiſdome*, where the *Virgin Mary* alſo kneeled by holding St. *John* in her *Right Hand*, and ſtretching forward her *Left Hand* which was foreſhortned, and finally the *Angel* holding *Chriſt* in his *Left Hand*, who ſitting by, looked upon St. *John* and *Bleſſed* him; again, divers other *Famous Painters* and *lights* of the *art*, have obſerved other *motions*, as *contemplation* in caſting the *Eyes* up to *Heaven*, admiring the *Angelical Muſick*, and neglecting for a time all *Inferiour Muſick*, with the

hands,

hands, *instruments*, and other *earthly melodies*, which *motions* were expressed in that *singular piece* of St. *Cecily* which *Raph. Painted* with Four other *Saints*, which *work* is now to be found in *Bolognia* at St. *Johns* in the *mount*, the *Agony* also and *sorrow* of the *afflicted*, which *Anton: Correggio* expressed most artificially in his own *City*, in *Christ* praying in the *Garden*; as likewise *want*, *panting*, *sweating*, *sleeping*, *threatning*, and the *motion* of the *flaming fire*: all which are most *lively* expressed by them in divers *places*, and now to come to the *Poets*, that which *Ariosto* speaketh of his *Orlando*, may serve for a fit *example* herein.

His leggs and hands he shakes, and breaths withall,
Whiles from his Face the liquid drops do fall.

And in another *place*, of a Man *grievously diseased*, *famished*, and out of *heart*, in the Person of the same *Orlando*, when *Angelica* found him lying upon the *shore*.

Rough, grisly-hair'd, Eyes staring, visage wan,
Sun-burnd and patcht, and all deform'd in sight,
In fine he lookt to make a true description
In face like Death, in hew, like an Ægyptian.

And that of *Dant* describing a Shipwrack in a great *Tempest* at *Sea*, where the Men are saved.

And even as they, who panting at a wrack,
Scap'd from the Sea, *and gotten to the shore,*
Turn'd to the dangerous water, and look back.

And thus much for *examples*, for he that would set down all the *examples* which would serve for the shewing, how in every *effect* we ought to choose the most proper *motions*, without which the *Picture* will be of small *worth*, should grow *infinite*; we must also have

regard to the *ſeaſons*, for the *Summer* cauſeth *open*, and *wearyſome actions*, *ſubject* unto *ſweatings* and *redneſs*; the *Winter reſtrained*, *drawn* in, and *trembling*; the *Spring merry*, *nimble*, *prompt*, and of a good *colour*; the *Autumne doubtful*, and more inclining unto *melancholly* then otherwiſe, notwithſtanding if you be to *paint* a labouring Man, you muſt vvithout any regard of the *ſeaſon* (though more of *Summer* then any of the reſt) repreſent him with *raiſed limns* and ſtrong *muſcles*, *ſwelling* and *ſtanding forth*, *ſweating* and *burning*, eſpecially in ſuch as carry *burdens*, draw great *weights*, or uſe *vehement leaping*, *walking*, *jeſting* with *weapons*, *fencing* and ſuch like *exerciſes*; laſtly, *ſleep* cauſeth no *motions* of *vigor* or *force* to be repreſented, but as if the body were vvithout *life*; Wherefore we muſt take heed, vve doe not (as ſome uſe) give unto thoſe vvhich *ſleep* ſuch kinds of *actions* in their *lying*, as in probability will not ſuffer them to *ſleep*, as vve ſee oft-times in Men *lying athwart ſtones*, *benches*, &c. being repreſented vvith their *limns ſupported* by their own *force*, vvherein it is evident, that ſuch *Painters* knovv not hovv to obſerve a *Decorum*.

Farthermore, there are *motions* proceeding from the *Taſt*, as daily *experience* teach us, for *ſourneſs* and *bitterneſs* cauſe the bending of the *Eyelids*, and other parts; *ſweet* and *ſavoury*, a *chearful countenance*; the like of good *ſmells*, whereas contrarywiſe bad *ſmells* make us draw in the *Noſtrils*, look aſide, turn the *back*, with wrinkled *Eye-lids*, *Eyes* almoſt cloſed, and *mouth* drawn in; of *hearing* and *touching*, they alſo cauſe diſtinct *motions* in our Bodies, as for *example*, from *ſharp ſounds* and *noiſe*, riſeth ſudden *fear* and *affrighting*, from *touching* any hot thing, *quick* and *ſpeedy motions*, from *touching* cold things, *reſtrained* and *fearful motions*, as in ſuch in the *winter touch Ice* or *Snow*. And ſo I conclude of *ſeeing*, for in looking upon things exceeding *bright*,

the

the *ſight* is offended, and a Man withdraweth himſelf for ſafegard in beholding obſcure things; the *Eyes* are *ſharpned*, by drawing near, and as it were *clozing* them as *Painters* uſe to do, when they would look near on a thing, which *effect* is cauſed by a *Picture* ſet afar off: *And here I will conclude thoſe ſimple* Motions *which are of moſt* Importance, *proceeding unto thoſe which conſiſt of* multiplicity.

Of the Motions of all ſorts of Cloth.

THe *Motions* of *Cloth*, that as the *Folds* or *Plaits* ought to runne out every way like *boughs* from the *Stemme* and *Body* of the *Tree*: and muſt be ſo made that one *Plait* riſe from another, as one *bough*, or one *ſtream* of *Water* iſſueth out from another, in ſuch wiſe, that there be no part of the *Cloth* wherein there appear not ſome of theſe *motions*; now theſe *motions* would be *moderate*, *gentle* and *free*, without any *interruptions*, more to be admired for their *grace* and *facility*, then for affected *pains* and *induſtry*, and becauſe all ſorts of *Cloth* have their *motions*, as well as Bodies, it muſt needs be that they *differ* between themſelves, according to the *differences* of the *clothes* themſelves.

Wherefore, they muſt be more light in fine *Cloth*, as *Sarcenet*, *Linnen*, *Cypreſs*, &c. in which the *Plaits* are *ſmall*, *raiſed up*, *trembling*, and as it were ſweetly *waving*, ſomewhat puffed up by *extending* and *ſpreading* themſelves like a *Sail*, where the *motion* receiveth more ſtrength by the *wind*, they do fall cloſe upon the *bare skin*, as appeareth plainly in *womens garments*, in whom you ſhall ſee their Thin *clothes* ſtretched upon their *bare skin*, on that ſide where the *wind bloweth*, and *blown* up-on the contrary part, the ſame falleth out in *mantells*, the looſe ends of *girdles* and *garters*, all which *motions* do

most fitly belong unto the apparel of *nimphs* and other *goddesses*, in respect of their *lightness*; *gross* and *dul shadows* are found in stiff *cloths*, where the *Plaits* are *few* and *gross*, so that they are capable but of slow *motion*, and therefore they sink *downwards*, and can hardly fall close to the *bare skin*, by reason of their own *grossenes*, which sustaineth them, and these *motions* do chiefly appeare in *cloth* of *gold*, *felt*, *thick leather* &c: in which the *Air* can have little *force* or none, wherefore the *plaits* or *folds* have their *motiom* accordingly as they are handled and pressed by the *wearer*; as under the *arme*, and under the *knee*, by *opening* and *stretching* out the *legg* and the *arme*, ever making *gross*, *hard*, and *stiff folds*, without all *slightings* or *plyablenes*, in such sort, that if a Man may lay Finer *cloth* upon them, they will easily *bear* it *up* without *pressing down*.

Temperate *motions*, which are neither too *gross*, nor too *slight*, are such as appear in the *folds* of *stuff* and other *cloths* of Fine *wool*, which therefore may conveniently be moved of the *Air*, and are plyable to a Mans *limns*, and so making most *sweet* and *pleasant folds*, they follow the *bare* very well, becoming very *nimble*, and falling *plyably* about the *loyns*. And hence have *Raphael*, *Michael Angelo*, *Leonard*, *Gaudentius*, *Albertus Durerus*, and other *Famous Masters* in *Drapery*, taken the *method* and *way* of giving the true *motions* unto *garments*, as from the most *perfect pattern* for their general use in making the *mantells* of the *Saints*, *Pavilions* or *Tents*, which are made with this kind of *Drapery*, besides these, there are also other kinds of *motions* called *turnings* and *crossings*, which are proper unto *Damasks*, *Taffataes*, *Sattins*, *Cloth* of *gold* &c: in which appeare *folds crossing* and *breaking* each other, by the divers *Vertue* of the *Drapery*.

Whence the *Venetians* have taken their manner of

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Drapery, who make their *folds* much different from the ſaid *motions* of *Raphael* and the reſt, which indeed ought not to be uſed any where ſave in counterfeits by the *life*, where it ſeems they are not onely *tolerable*, but alſo very *requiſite*; but in my *Fudgement* they ſhould not ordinarily be uſed in *Hiſtories*, and yet if occaſion do require that they ſhould be repreſented in any *place*, they ought not to be done wholly, but only ſomewhat and reſembled with a *pretty touch* and *grace*, in ſuch ſort that they may not *ſavour* of an affected *imitation* of the *natural garments*, without *grace* or *order* which is often uſed of many with ſmall reaſon (as I think:) there are alſo other *motions* as of *velvet*, *limber leather*, &c. all which differ one from another, but I think theſe may ſuffice, without proceeding any farther in the diſcourſe hereof; only let the *Painter* be *careful* and *induſtrious*, as well herein as in the reſt: Inſomuch as in the *excellency* and *perfection* thereof dependeth, as well hereon, as on the reſt; becauſe theſe *motions* of *garments* come ſo neer the *life*, that it is evident, that they are able to make a *picture* ſeem *diſpleaſing* and *ilfavoured*, procuring the *ſcorn* and *laughter* of the *beholders*; ſuch were ſome of thoſe which were uſed by our Great *Grandfathers* Sonne Two hundred Years ſince, which ſeemed like round *ſticks*, or *candles* hanging down, which ſome of our late *workmen* of good Note have alſo uſed, making their *folds* too long, *hanging* down like *Canes*, without any kind of *grace*. Another *defect* in the *Drapery* of old *Pictures* I find, which is; that they ſeem to be made like unto *Scales* in ſome ſort: which I think, they took from the *imitation* of the *models* of Men, *cloathed* with *paper*, which point afterwards attained to *high perfection*, by the great *induſtry* of *Bramant*, and *Andreas*

Montegnia, and was afterwards reformed, and made much more abſolute by *Albert Durer*, and *Lucas* of *Leiden*, and *Aldigravers*, whoſe Folds for the moſt part nere like *guts* confounded in one another.

Of the Motions of Trees and all other things that are moved.

LAſtly the *Motions* of every thing which is moved, ought to be expreſſed with *Judgement*, according-ly as they agree with the thing whereunto they are given, ſometimes *quick*, ſometimes *ſlow*, ſometimes *moveable*, ſometimes not: And Firſt of all in *Trees*, when they are *ſhaken* with the *wind*, there ſmaller (and therefore more plyable) *boughs*, muſt be reſembled with ſuch an *action*, that they may more ſtrike one againſt another, by *yeilding* and *declining* from the part whence the *wind* bloweth, then the *ſtiffer* (and therefore *ſlower*) the Body notwithſtanding *remaining ſtrong* and *ſtedfaſt*, the *boughs* growing from thence, begin a little to *bend*, and the others which proceed from them a little more, ſo that in the *end* they ſhew the ſame *agility*, in the *leaves* moſt of all; it is true that all *Trees* have not a like *motion*: For the *Willow moveth*, and is *ſhaken* ex-treamly, the *Pine-tree* not at all, or very little, and ſo forth of the reſt according to their *natures*, but by the way we muſt Note, that *young* and *tender Trees* of Body, begin Firſt to move from the *bottom* of the Body, *ſhaking* their *boughs* and *leaves* together. *Herbs* likewiſe whether they bear *flowers* or *fruits*, have trembling *motions*, according to the conditions of the *winde* which *bloweth* them, and alſo accordingly as they are *forced* or *oppreſſed* of any thing; as for *example*, an *Ear* of *Corn* when a *Bird* ſits feeding upon it, which will not on-ly make it *bend*, but even weigh it down to the *Earth*, as well obſerved that *Country Fellow* in *Greece* of a

Painter,

Painter, whether it were *Ariſtides* or *Pamphilus* I do not well remember, who had *painted* a *Bird* upon an *Ear* of *Corn*, without making the *ſtalk bend* a jot: In like ſort the *motions* of other unſenſible things, as quivering of *Feathers*, of *wings* and *plumes*, the wreathing of *ropes*, the knots of *bands*, flying of *ſtraws*, *duſt*, &c. muſt be expreſſed according to the *violence* done unto them, to the end there may no occaſion be given unto the meaneſt, to *tax* and *carp* at *Painters* (otherwiſe moſt excellent;) as not long ſince fell out, in the work of a good *carver*; who in the wrong ſide, where he had *carved Michael Angelo*, made a blind *Beggar*, led by a *Dog* tyed with a *ſtring* about his *Neck*, which ſeemed to be ſo *ſtretched*, that it was as *ſtiff* as a *ſtaff*, without any *bowing*: which gave occaſion to a *waggiſh Boy* to *ſcoff* at it, ſaying, that if the *Dog*, had ſtraitned the *ſtring* ſo *harde*, he had either been *ſtrangled*, or not able to go any farther; which cauſed certain *Painters* which were there to break into an extreame laughter.

Many ſuch blame worthy *motions* may be found in *Pictures*, which would not ſo eaſily eſcape the *hands* of *Painters*, if in every thing they *Paint*, they did conſider, that it is their own diſgrace be it never ſo ſmall, as the moſt *diligent Leonard*, and *Cæſar Seſtius* did out of whoſe *hands* there never came any unperfect *piece* of *work*; for in the ſmalleſt *herbs*, you ſhall find their moſt *true Proportion*, and *Natural Motion*.

Albertus Durerus was no leſs careful in this behalf, as may ſufficiently appear by his *prints* and *coloured pieces*, in which you ſhall find the *legitimate motions*, even unto the ſmalleſt *hairs* of the *beard*, as in that of the Duke of *Saxony*, which was alſo drawn again by *Titianus*, and afterwards in the *hairs* of St. *Sebaſtians dog*, in the *print*

of the *horses* of *sense* and *death*, and in the great *leaves* of *Adam* and *Eve*.

The *motions* of the *Sea* must be otherwise expressed by representing the divers *agitations* of the *waters*, as likewise in *rivers*, the flashing of the *waters* upon *Boats*, and *Ships* floating up and down on the *waters*, through the uncertainty of the *surges* and the *Ships* resistance. We must also represent the *motions* of *waters* falling down from an *high place*, but especially when they fall upon some *Rock* or *stones*, where you shall see them *spirting* up into the *Air*, and sprinkling all about.

Clouds also in the *Air* require to have their *motions* judiciously expressed, now gathered together with the *winds*, now violently *condensated* into *Hail*, *Thunderbolts*, *Lightning*, *Rain*, and such like *Meteors*: Finally you can make nothing, which requireth not his *proper motions*, according unto which it ought to be represented, but having hitherto sufficiently (as I suppose) discoursed of these kind of *motions*, I will here shut up all with the most *hot* and *vehement motions* of the *flaming Fire*, hastening towards an end as that doth naturally, although it be diversly *stirred* and *blown* with the wind, whereby notwithstanding gathering more *force*, it is *augmented* and *increased*.

THE Art of Miniture OR LIMNING

I Hope that no Ingenuous *perſon*, will be ſo *bold* to attempt this *Art*, before he can *deſign*, (that is to ſay) further than Copying any *Picture* in *black* and *white*, as *Cole*, *black Chalk*, *black Lead* or the like. It is neceſſary to *draw* much after good *Heads* of *plaiſter* of *Paris*, becauſe the difference is much more difficult to draw after a *round* then a *flat*, and after you have practiſed much by the *Heads* of *plaiſter*, you muſt endeavour to *draw* much after the life, in *black* and *white*, before you undertake the *Art of Limning*.

The *Colours* to be uſed in *Limning* are termed thus,

Whites { *Flake white*, *Serus* } *Red* { *Carmine*, *Indian Lake*, *Red Lead*, *Indian Red*, *Burnt Ocur*, &c. } *Yellow* { *Maſticot*, *Yellow ocur*, *Eng. ocur*, *Pinck*. }

Greens { *Sap Green*, *Pinck and Bice*, *Green Bice*, *Terra Vert*. } *Blews* { *Ultra Marine*, *Dutch Bice*, *Smalt*, *Indigo*. }

Browns { *Gall Stone*, *Mumme*, *Cullins Earth*, *Umber*, *Ruſt*. } *Blacks* { *Ivory black*, *Sea-cole*, *Lamp black*, *Cherry Stone*. }

As for *Vermillion*, *Verdigreaſe*, *Orpiment*, &c. they are too *courſe* and *gritty* to *uſe* in *water colours*; *Turniſoile*, *Litmus blew*, *Roſſet*, *Braſil*, *Logwood*, *Saffron*, are more fit for *waſhing prints* then *curious Limning*.

The *way* and *manner* of preparing *colours*,

White Lead.

To make your *white lead* that it ſhall neither *ruſt* nor *ſhine*, both which are no ſmall inconveniencies in the *Art* of *Limning*, therefore before you *grind* either of them, lay them in the *Sun* two or three dayes, which will *exhale* thoſe *greaſy* and *ſalt humours* that *poyſon* and *ſtarve* the *colours*, beſides you muſt ſcrape away the *ſuperficies* of the *white lead*, and only reſerve the middle of it, then *grind* it with *fair water*, or *roſemary water*, upon a *Pebble* or *Porphire*, when it is *ground* have in readineſs a *chalk-ſtone* with *furrows* in it, into which *furrows* put the *colour* while it is *wet*, and ſo let it dry in the *Sun*, and it will be exceedingly *cleanſed* thereby, after it is through dry it muſt be *waſhed* in *ſpring water*; as for example,

Let one Inſtance ſerve for all

Colours to be waſhed and how.

TAke a Pound of *white lead* finely *ground*, put it into a *baſon* of *ſpring water*, ſtirr it a while together, till the *water* be all *coloured*, then let it ſtand, and you will ſoon perceive a *greaſy ſcum* to ariſe, which *ſcum* blow off and powre the *coloured water* into a clean *baſon*, leaving the groſſer Body at the bottome of the *baſon* behind, it being good for nothing but groſſer *uſes*, let the purer part ſtand One *howre* or Two, untill it is quite ſetled, then powre off the *water* from the *colour*, and put it in *freſh water*, and ſtirr it as before mentioned,

then

then let it ſettle half the time that it did at firſt, and then powre off the *water* into a clean *baſon*, leaving the *courſer* part behind, and when it is dry put it up into *papers* for your *uſe*; then let the other *water* which you powred off, ſettle, and then powre off the *water* from it, and take the *colour* when it is dry, and *paper* it as before, for your *uſe*: *colours* thus *refined* five or ſix times over are the *pureſt*, and moſt *fit* for the beſt *uſe*, and when you uſe it ſpread a little of it about a *ſhell*, with your *finger*, and temper it with *gum water*.

Colours to be vvashed are theſe followving.

Red Lead or *Mene*, *Maſticot*, *green Bice*, *blew Bice*, *Smalt*, *Ultamarine*, *Sap green*.

Colours to be ground are theſe.

White Lead, *Serus*, *Indian Lake*, *Brown Oker*, *Yellow Oker*, *Pinck*, *Indigo*, *Umber*, *Cullins earth*, *Cherry ſtone*, *Ivory*, *Lamp black*, *Indian red*.

Of the Natureof Colours in general

Engliſh Ocur.

Yellow) This *colour* lies even in the *ſhell* of it ſelf, and is of great *uſe*, eſpecially if well *ground*.

Pinck mixed with Bice, a good green.

Green) The Faireſt *Pinck* is beſt, well *ground* and *tempered* with *blew Bice*, allowing one quantity of *Pinck* to three of *blew Bice*; to *deepen* this *colour* in *Landskip* or *Drapery*, mix with it a little *Indigo* finely *ground*.

Umber.

Brown) This *colour* is ſomewhat *greaſy*; to cleanſe it,

burn it in a *Cruciple*, afterwards *grind* it and it will be good.

Indian Red.

Dark Red) Becauſe this *colour* is very courſe, you may uſe *Umber*, and a little *lake* tempered, which is as good.

Black.

Black) Ivory and *Cherry-ſtone*, are both to be burnt in a *Cruciple*, and ſo *ground*; *Cherryſtone* is good for *Drapery*, for a *black Sattin*, temper with it a little *white*, *Indian Lake*, and *Indigo*, heighten it with a *lighter mixture*, *deepen* it with Ivory *black*, this was *Hilliards* way.

Ivory *Black.*

Black) Grind Ivory with a pittance of *white Sugar Candy*, which will preſerve it from cracklingout of your *ſhel.*

Indian Lake.

Purple) Grind this with a little *gum water*, and when it is *ground* fine, before you put it into the *ſhell*, mix a little *powder* of *white Sugar Candy* vvith it, vvhich vvill *preſerve* it from *crackling*, after this temperature you may ſpread it *thinly* vvith your *finger* about the *ſhell.*

Obſervations in Grinding.

Leave not your *colour* too *moiſt*, but *thick* and *clammy*, if after your *colour* be dry in your *ſhell*, you rubbing your *fingers* thereon ſhall find any to come off, it muſt be better bound vvith *gum*, and if too much *gum*, it will *ſhine* and be apt to *crackle* off after it is *uſed.*

To waſh Bice.

Blew) Grind your Bice firſt very purely, then fill a large

large *ſhell* with clean *water*, put the *Bice* therein and ſtirr it, then let it ſettle One hower, take off the *ſcum* and powre off the *water*, then reſerve the bottome vvhen it is dry for *uſe*: To *deepen* this, *uſe Litmus water*.

How to chooſe your Pencils.

Chooſe ſuch *Pencils* as are *clear* and *ſharp pointed*, not dividing into parts; of theſe you muſt have in readineſs a ſeveral *Pencil*, for every ſeveral *colour*.

To prepare a Tablet to work on with Miniture for Pictures by the life.

Take an ordinary playing *Card*, *poliſh* it with a *Dogs Tooth*, and make as ſmooth as you can the *white ſide* of it, cleanſing it from all *ſpots* and *extuberances*; then chooſe of the beſt abortive *parchment*, a *Piece* proportionable to your *Card*, which piece with *fine* and *clean ſtarch paſt* faſt on the *card*, temper the *ſtarch* before you *paſt* it on, in the *palme* of your *hand*, that it may be free from *Knots*; let the *card* thus *paſted* dry, then making your *grinding-ſtone* as clean as may be, lay the *card* thereon with the *parchment ſide* downwards; then with a *Tooth burniſh* or *poliſh* the backſide as hard as you can, Note that the outſide of the *skin* is beſt to *Limne* upon, and muſt therefore be outmoſt.

The Ground colour for a Face.

Your *card* thus prepared, you are to lay a *ground* or *primer* of *fleſh colour* before you begin your *work*, and that muſt be tempered according to the *complexion* of the *Face* to be drawn; if the *complexion* be *fair*, *temper white*, *red lead*, and *lake*, if an hard *ſwarthy complexion*, mingle with your *white* and *red* a little fine *Maſticot*, or

English Ocur, but Note that your ground ought alwayes to be fairer then the *Face* you take; for it is a *facile* matter to darken a light *colour*, but a difficult to lighten a *deep* one; for in *Limning* you must never heighten, but work them down to their just *colour*.

Your *ground* thus prepared, you must lay it on the *card*, (ordered as before) with a *Pencil* bigger then ordinary, lay it on as *smooth*, *even*, and free from *hairs* of your *Pencil*, as 'tis possible, which that you may do) fill your *Pencil* full of *colour*, rather *thin* or *watrish*, then *thick* and *gross*, and with two or three *dawbes* of your great *Pencil*, lay it on in an instant, the nimbler it is laid on, the evener the *colour* will ly.

Note that you ought to cover rather too much then too little with this *prime*; cover somewhat more of the *card* with the ground *colour*, then you shall use for the *Face*.

This done, take a pretty large *Pallet* of *Ivory*, and before you begin to work, temper certain little *heaps* of several *shadowes* for the *Face*, which you must temper with your *finger* about the *Pallet*.

The Order of Shadowes for the Face.

Shadows In all your *Shadowes*, remember to mix some *white*, (*exempli gratia*) for the *red* in the *Cheeks*, *Lips*, &c. temper *Lake*, *red Lead*; and a little *white*, for the *blew*, as the *Veins*, &c. a little *Indigo* and *white*; for *blew Bice* is never *used* in a *Face*, for the *faintest* and *weakest colour* or *shades*, *Lake* and *white*, a little *Ocur*, and a little *Indigo*, adding thereto if you will a small pittance of *Pinck* or *Masticot*, for the deeper *shadowes*, white *English Ocur*, *Umber*, for the *darkest* and *hardest shadowes*, use *Lake* and *Pink* mixt with *Umber*: Note that *black* must not by any means be used in a *Face*, for other *shadowes* your

own

own obſervation muſt direct you, for it is impoſſible to give a general *Rule* for the *ſhadowes* in all *Faces*, unleſs we could force *nature* to obſerve the ſame *method* in *compoſing* and *modelling* them, ſo that one in every *pun-ctilio* ſhould reſemble the other.

For your *Light* to draw by a *Northern* is accounted beſt, which if it fall *ſlooping down* from an high *window*, is beſt. *Light*

Place your ſelf to your *Desk*, that the *light* may ſtrike in *ſidelong* from the *left-hand* to the *right*, and obſerve that in all your *works* it will ſhew to the beſt *advantage*, when it is turned and ſeen by the ſame *light* it was drawn by. *Poſition*

Let a *Saucer* or clean *Shell* of fair *Water* be ever on your *right hand*, wherewith you may temper your *colours* and waſh your *pencils*, together with a *brush pencil* dry, to cleanſe your *work* from *duſt*; alſo a *ſharp penknife*, wherewith to take away ſuch *ſpecks* or *hairs* as may caſually mix with your *colours*, or fall into your *card*; you may alſo conveniently cover your *picture*, with a piece of *paper*, whereon to try your *pencils* before you begin to work. *Neceſſaries in Limning.*

To begin a Face.

Having theſe accommodations, draw the *lines* of *porphile* (*i. e.* the outmoſt *ſtroak*) of a *Face* with *lake* and *white*, mingled very *faint*, by this you may conveniently mend the *draught* (if *falſe*) with a *deeper mixture* of the ſame *colour*, the *lines* being *exactly* drawn, and *true* proportion obſerved (which is the chiefeſt thing of concernment) next obſerve the *deeper* and more *remarkable ſhadowes*, and with the ſame *faint Crimſon* *The firſt draught.*

colour of *lake* and *white*, give some *slight touches* and *marks* somewhat *roughly* of these *shadowes*, which afterward you'l finish.

The Order to be observed in drawing by the life.

The Order of drawing first sitting. First you must only *dead colour* the *Face*, as the *Oyl-painters* do, and not meddle with the rest, and this first sitting commonly takes up two *hours*.

Second sitting. The second sitting will require Four or Five *hours*, in that time you are to go over the *Face* very *curiously*, observing what ever may conduce either to *likeness*, or *judicious colouring*, also observing of the several *graces*, *beauties*, or *deformities*, as they appear in *nature*, or else in smoothness of shadowes, or *close* and *sweet couching* the *colours*.

Third sitting. The third sitting commonly takes up two or three *hours*, and is spent in *closing* what was before left *imperfect* and *rough*; but principally in giving to every *deep shadow*, the *strong touches* and *deepnings* as well in the *dark shadowes* in the *Face*, as in the *Eyes*, *Eyebrows*, *Hair* and *Ears*, and these *touches* are ever the last part of this *business*, and are never to be done till all the *Hair* and *Drapery* be finisht, these *touches* (if well done) add exceedingly to the life.

Concerning dead colouring.

The *dead colouring* of a *Face* is to be done the *roughest* and *boldest* of all; having drawn your *Face* with *lake* and *white* (as before) you must take to the said *colour* a little *red lead*, tempering it to the *colour* of the *Cheeks*, *Lips*, &c. but very *faintly*, because you cannot *lighten* a *deep colour*, without hazard of spoiling the *picture*.

To

The first *colour* to begin the *Face* with, is the *red* of the *Cheeks* and *Lips*, somewhat strongly the bottome of the *Chin*, if the party be *beardless*; over under and about the *Eyes* you will perceive a *delicate* and *faint redness*, and underneath the *Eyes*, inclining to *purple colour*, which in *fair* and *beautiful Faces* is usual, and must be observed; the *tip* of the *Ear*, and the *roots* of the Hair are commonly of the same *colour*. *To begin to Limn.*

All this you must do after the manner of *hatching*, with *faint* and *gentle strokes*, washing it all along. In short, in your *dead colouring* you must cover your *ground* with the aforesaid *red*, and the *subsequent shadows*.

Note) Be not too *curious* in your *first working*, but regard a *good bold following* of *nature*, rather then *smooth curiosity*, the *roughness* of the *colour*, you may end at another sitting.

The second work of Limning.

The *red* being done, the next is the *faint blews* about the *balls* and *corners* of the *Eyes*, and the *gray* and *blewish* under the *Eyes*, the *Temples*, &c. which you are also to *work* from the uppermost part of the *Face* almost all over, but exceeding *sweet* and *faint*, by degrees, *sweetning* and *heightning* your *shadows*, as the *light falls*: And in going over the *Face*, be sure to mark out the *hard shadows* in the *dark side* of the *Face*, under the *Nose*, *Chin*, *Eyebrows*, &c. As the *light falls*, and somewhat *strong touches*, in those places bring up your *work* together in an *equal roundness*, not giving perfection to to any particular part of the *Face*, but visiting all the *parts curiously*, and in a kind of *randome*, by which means you will better observe the *likeness*, *roundness*, *postures*, *colouring*, or what ever else is requisite to the perfection of your *work*. *The second Procedure.*

The third Procedure. Having done the *fainter* or *lighter ſhades*, and ſomewhat ſmoothed and wrought them into the *red*, you may go over the *hair*, diſpoſing into ſuch *forms*, *folds* or *tramels*, as may become your *Picture* beſt.

You muſt at firſt only draw them with *colour* as near as you can, *ſuitable* to the *life*, and after wash them lightly at the firſt, and then once more peruſe your *work*, being careful to fill up the *void*, *empty* and *bare places*, which are uncovered with *colour*, and at laſt *deepen* it ſomewhat more *ſtrongly* then before in the *deepeſt ſhady places*, ſtill carefully obſerving the *life*; *thus much for the firſt ſitting*.

The Order of Limning in the ſecond ſittiug.

The *party* being ſet *juſt* in his former *Seat*, you muſt moſt *exactly* obſerve and *curiouſly delineate* with your *pencil*, thoſe ſeveral varieties of *nature*, which you did *rudely trace* out before, to do this you muſt uſe the ſame *colour* in the ſame *places* you did before, *working*, *driving* and *ſweetning* the ſame *colours* one into another, to the *end* that nothing be left in your *work* with a *hard edge*, *uneven*, or a *lump* together, but alſo ſo *ſwept* and *driven* one into another, with the *point* of ſomewhat a *ſharper pencil*, then you uſed at the firſt as that your *ſhadows* may lye *ſoft* and *ſmooth*, being *diſperſed* and *gently* extended into all, and towards the *lighter parts* of the *Face*, like *air* or a *vapoury ſmoak*; but before this you muſt carefully obſerve all the *ſhadows* and *colours*.

The ground behind the Picture. For the *Ground* behind the *Picture*, it is commonly *blew* or *crimſon*, ſomewhat like a *Sattin* or *red Velvet Curtain*: if *blew* you muſt lay it thus, your *Bice* being *pure* and *cleare washt*, temper as much in a *ſhell* as will cover a *Card*, let it be all throughly *moiſt*

and

and well bound with *gum*, then with a ſmall *pencil*, go about with the ſame *colour*, the *porphile*, that is the *utmoſt ſtroke* and *ambient ſuperficies* of the *Picture*; this done take a *greater pencil* and therewih *wash* over ſomewhat carefully the whole *ground* that you mean to cover with a *blew*, ſomewhat *thin* and *watriſh*, and then with a reaſonable *big pencil* full of *colour* and *flowing*, lay over that *place* with a *thick* and *ſubſtantial* Body of *colour*, which before you had only *washt over*, in the doing of this you muſt be very *ſwift*, keeping *colour moiſt* that you have laid, not permitting any *part* to dry til the whole be covered.

A Crimſon Ground.

A Crimſon Ground.

If you would have your *Ground Crimſon* like *Sattin*, you muſt with *Indian-Lake* trace out where and in what *places* you will have theſe *ſtrong* and *hard lights* and *reflections* to fall, which is ſeen in *Sattin* or *Velvet*, there lay your *lights* with a *thin* and *wateriſh lake*, and while it is yet wet with a *ſtronger* and *darker colour* of *lake thick ground*, lay the *deepning* and *hard ſtrong ſhadows*, cloſe by the other *lights*; your beſt way is to have a *piece* of *Sattin* before you to imitate.

For Method in the Touches.

After this lay your *linnen* with a *flat white*, and the *Drapery* likewiſe *flat*, then go over your *face* again, endeavouring to reduce each *ſhadow* to its *true perfection*, then draw the *lines* of the *Eyelids*, expreſſing the *red dark Noſtril*, the *ſhady* entrance into the *Eares*, the *deepneſs* of the *Eyebrows*, and thoſe more perſpicuous *notes* and *marks* in the *face*, with a *pencil* ſomewhat more *curious* and sharp then before, you may *darken* your *ground* as you ſee will be moſt advantagious to the ſetting out the *Picture*.

The Hair Next go over your *hair heightning* and *deepning* it as you shall ſee by the *life*, drawing ſome *locks* looſely over the *ground*, which would otherwiſe ſeem *unpleaſant*.

Linnen Shade. To *Shadow* in *Linnen*, uſe *black*, *vvhite*, a little *yellow*, and leſs *blew*, the *black* muſt be *deepned* with *Ivory-black*, with which mix a little *Lake*, and *Indigo*, or *Litmus blew*, thus much for the ſecond ſitting.

The manner of finishing at the third ſitting.

Third ſitting. The third will be wholly ſpent in giving the *ſtrong touches* and obſervations neceſſary for the *rounding* of a *face*, which you will now better ſee to do, the *apparel*, *hair* and *ground*, being already finished. In this ſitting *curiouſly* obſerve whatever may *conduce* to *ſimilitude*, which is the chiefeſt thing, as *Scars*, *Moles*, &c. *glances* of the *Eyes*, *deſcending* and *circumflections* of the *Mouth*, never make your *deepeſt ſhadows* ſo *deep* as they appear in the *life*.

Thus much of the Face and three ſittings,

For *Ornaments thus.*

Ornament. *Armour ſilvea*) for *colouring armour*, firſt lay *Liquid ſilver flat* and *even*, which *dryed* and *burniſht* with a *Tooth*, temper the *ſhadows* with *Silver*, *Indigo*, *Litmus*, and a little *Umber*, work theſe *ſhadows* on the *Silver* as directed by the *life*.

Gold Armour. For the *gold armour*, lay *gold* as you did *ſilver*, for the *Shadow*, *Lake*, *English Ocur*, tempered with a little *gold*.

Pearls. To expreſs *roundneſs* and *luſtre* of *Pearls*, your ground muſt be *white* and *Indigo*, your *ſhadow black* and *Pinck*.

Dia-

Diamonds are expreſt with a *ground* of *flat Li-* *Diamonds.*
quid ſilver, the *deepning* is *Cherriſtone*, *black* and *Ivory*; the *deeper* the *ſhadow*, the *fairer* the *Diamond.*

Lay a *ground* of *ſilver*, *burniſht* to the *bigneſs* *Rubies.*
of the *Ruby*, then take *Turpentine* of the *beſt* and *pureſt*, and temper with it very neat a little *Indian Lake*; then taking a *needle*, or ſome ſmall *Iron inſtrument* heated in a *Candle*, (*lay* or *drop*) a little of the compoſition upon the *ſilver*, faſhioning the *ſtone* in a *round* or *ſquare*, or what *faſhion* you *pleaſe*, with the *point* of your *inſtruments*, you muſt let it lye a *day* or two to *dry*, if it be too long in *drying*, add to your compoſition a little *powder* of *clarified Maſtick*; *This receipt is not commonly known.*

For any *green ſtone*, temper your *Turpentine* *Emeraulds.*
with *Verdigreaſe*, and a little *Turmerick root*, firſt ſcraped with *Vinegar*, then let it dry, then grind it to fine *powder*, and temper it.

Mix *Turpentine* with *Ultramarine*, &c. *Saphires.*
Note that the *ground* to all muſt be *Liquid ſilver poliſht.*

A true Receipt to make liquid gold.

Take of fine *leaf-gold*, the Value of 2*s*, 6*d*, *Liquid gold.*
grind this *gold* with a *ſtrong* and *thick gum-water* upon a reaſonable *large ſtone*, which you muſt *grind* very *fine*, and *painfully*; as you *grind* it, ſtill add more of your *ſtrong gum-water*, and though the *gold* look never ſo *black* and *dirty* 'tis never the worſe, having brought it to a competent *fineneſs*, wash it in a great *ſhell* as you did *Bice*; &c. Being very clean add to it a little *quantity* of *Mercury ſublimate*, with the *point* of your *Knife*, which you muſt temper with it, and a very little *gum* to bind it in the *ſhell*, and as it *ſettles*, and begins to *dry*

in the *ſhell*, ſhake it together, and remove and ſpread the *gold* about the ſides of the *ſhell*, that it may be altogether of one *colour* and *fineneſs*, uſe with fair *water*, as you do the other *colours*.

Note. So for *liquid ſilver*, only obſerve (and 'tis a ſecret) that when your *ſilver* either with *long keeping* or *moiſtneſs* of the *Air* becomes *ſtarved* and *ruſty*; you muſt to prevent this inconveniency, before you lay the *ſilver* Cover over the *place* with a little *Juice* of *Garlick*, which will preſerve it.

Of Landskip.

Landskip. In *drawing Landskip* with *water colours* ever begin with the *Skie*, and if there be any *Sunbeams*, do them firſt.

Purple Clouds. For the *Purple Clouds*, only mingle *Lake* and *white*.

Yellow. The *Sun-beams*, *Maſticot* and *white*.

Note 1. Work your *blew Skie* with *ſmalt* only, or *Ultramarine*.

Note 2. At your firſt *working* dead *colour* all the *piece* over, leave nothing uncovered, lay the *colour ſmooth* and *even*.

Note 3. Work the *Skie* down in the *Horizon fainter* as you draw near the *Earth*, except in *tempeſtuous skies*, work your further *Mountains* ſo that they ſhould ſeem to be loſt in the *Air*.

Note 4. Your firſt *ground* muſt be of the *colour* of the *Earth* and *dark*; *yellowiſh*, *brown*, *green*, the next ſucceſſively as they looſe in their diſtance muſt alſo *faint* and abate in their *colours*.

Note 5. Beware of *perfection* at a diſtance.

Note 6. Ever place *light* againſt *dark*, and *dark* againſt *light* (that is) the only way to extend the *proſpect* far off, is by oppoſing *light* to *ſhadows*, yet ſo as ever they muſt looſe

looſe their *force* and *vigor* in proportion as they remove from the *Eye*, and the ſtrongeſt *ſhadow* ever neareſt *hand*.

A Dark Green.

For a *dark green* for *Trees* mingle *Verduter*, *Pinck*, and *Indigo*, the *deepeſt ſhadows* of all in *green* are made with *ſap green* and *Indigo*.

A Rare ſecret to preſerve Colours.

Take *Roſemary water* double *diſtilled*, and with a few *drops* of it, temper your *ſhell* of *white*, and you ſhall ſee it become inſtantly perfect *white*, however *dead* and *faded* it was before, beſides this *water allayes* the Bubbles in *white* and *umber*, which are uſually very troubleſome in the *grinding* them.

Some general obſervations in Miniture.

1. If your *colours* peel or by reaſon of the greaſineſs of your *Parchment* will not lie on, mix with them a very little *Ear wax*, and t'will help them.
2. Sit not above two *yards* from him you *draw* by.
3. *Draw* not any part in the *face* of a *picture* exactly at the firſt, neither *finiſh* a *Mouth*, *Eye* or *Noſe*, till the reſt of your *work* come up, and be wrought together with it.
4. When you have finiſhed the *Face*, make the party ſtand up to draw the *Drapery* by him.
5. Let the *Party* you draw be ſet in an *higher ſeat* then your ſelf that draw.

To make Crayons or Paſtils.

Paſtils. To inſtance one for all, if you were to make a *Paſtil* for a *brown complexion*, *grind* on your *ſtone*, *ſerus*, *red lead*, or *vermillion*, *English ocur*, and a little *pinck*; to this add a proportionable *quantity* of *plaiſter* of *paris*, *burnt* and *finely ſifted*, mix this with the other *colours*, and you may role it up.

Note. Mix white *Serus* with all your other *colours*, and ſome inſtead of *Serus* uſe *Tobacco pipe clay*.

To make white.

Serus. Take two parts of ordinary *chalk*, and one part of *Allum*, *grind* thoſe together *fine*, make them up in a *lump*, burn them in a *Cruciple* and uſe them.

To make white Lead.

White Lead. Take a *Cruciple* whereinto put ſeveral ſmal *plates* of *clean Lead*, cover them with *white wine Vinegar*, *luit* the *Pot cloſe* and dig an *hole* in a *dunghill*, where let it abide for the *ſpace* of ſix *weeks*; Take it it up and ſcrape off the *ſuperfluities* of the *white Lead*, and ſo uſe them.

To prepare a Card for a Picture.

Wet a *card* all over with a great *pencil* ſo ſoone as the *water* is ſunck in, *burniſh* it ſmooth on the *back-ſide*, having tempered ſome *ſtarch* with a *knife* in the *palme* of your *hand* ſpread it over, inſtantly lay on a piece of abortive *parchment*, let it be *preſt* in a book till it be almoſt dry, then ſmooth it on the *back-ſide*.

To preſerve Colours freſh, grind them with the gall of a Neet.

To prepare White Excellently.

White. Take ſome *Serus* which being *groſly bruiſed* and

put

put into a fine earthen *Baſon*, put to it a good *quantity* of running *water* diſtilled, wherein *wash* the *Serus* till it be throughly *clean* and *purged*, which you shall know by the Taſte of the *water*, which is drained from thence.

Is made thus, take of *Oyl* of *Turpentine* one pound, *Sandrake* one pound, *Oyl* of *Spike* one pound, mixt the *Oyles* together, and let all ſtand over the *fire* till the *Sandrake* be diſſolved, if the *fire* should chance to catch hold on this, clap a *pewter diſh* over it. *Verniſh.*

Concerning Wax-work or Moulding, to make the Moulds.

Take a good big *lump* of *plaiſter* of *Paris* and burn it in a *Cruciple* till it be *red hot*, let it *cool*, then beat it very *fine*, and *ſearſe* it through a *Tiffany Sieve*; be very cautious that the *wind* come not at it, for that will *hinder* its *hardening*; after it be *tempered* keep it *wrapt* up in a *clean brown paper*, uſe it thus; take any *Earthen* or *Pewter Veſſel*, that is shallow, and put ten or twelve *ſpoonfulls* of *fair water* in it, then prepare your *fruit*, and bind a *rag* round it like a *cord* in a *wreath* long wayes on the *fruit*: then take ſome *linſed Oyle* or (which is more cleanly) *Oyl* of *ſweet Almonds*, with which in a *pencil beſmear* the *Lemmon*, or (what other fruit it be) on the one ſide, which lay uppermoſt, your *Lemmon* thus prepared, take ſome of your *ſifted plaiſter* of *Paris*, and temper it in the fore-mentioned *water* to a pretty *thickneſs*, then as ſpeedily as may be with the help of your *ſpoon*, caſt it on the *oyled Lemmon*, lay it on very *thick*, leaſt the *thinneſs* of the *Mould* ſpoil the *work*, when 'tis hardned (which will be in a ſmall time) take away your *rag*, leaving the *linnen* ſtill faſt in it's *half mould*; which done turn the *hardned ſide downward*, then *Oyl* the other half of the *Lemmon* together, with the edges of the *The Mould.*

mould, which the *rag* did cover; then *waſh* your *porringer* or *veſſel* where the former *plaiſter* was *clean* and *prepared*, and caſt on more *plaiſter* of *Paris* as before, obſerve, it muſt not be too *thick* when you caſt it on; and after 'tis *hardned*, you muſt put no more *water* to it, for then it will *crumble*; when you have done the *moulds* ſo, and made a *notch* that one may fall *fitly* into the other, tye them *cloſe* together, having before well *Oyled* them, and keep them for *uſe*.

To caſt in theſe Moulds.

To caſt. Uſe the *whiteſt* and *pureſt Virgins wax.*

To colour the wax anſwerable to the things you mould.

To colour. For a *Raddiſh* your *ground* is *Serus*, which muſt be afterwards *painted* over with *Lake*, the top of the *Raddiſh painted* with *Verdigreaſe*, all other ſuch *colours* muſt be tempered with *gum water*; *gum water* is thus made, diſſolve a *lump* of *pure gum Araback* about the bigneſs of a *Walnut*, in two *ſpoonfulls* of *fair water*, herewith temper your *colours*.

Note that every thing *Mouldable* is either all of one, and the ſame *colour*, as a (*Lemmon*) or *ſtriped* and *particoloured* with different *colours*, as a *Pear*, *Pearmain*, &c. Now ſuch as are of one *colour* may be eaſily caſt all of the ſame *colour*; but ſuch as are *varicated* muſt be kept out afterwards by *colours* tempered with *gum water* (as above) you *colour* your *wax* by putting into it whileſt it is *hot* and *melted* in a *Gally-pot*, a little *linnen bag* of that *colour* you uſe, provided that the *colour* be before bruiſed very fine.

As to particulars for the *Lemmons* or *Apricocks*, take only *Turmerick* in a *bag*, for *Oranges turmerick* and *red Lead* well tempered; *Apples*, *Pears*, or *Grapes*, *turmerick* and a little *Verdigreaſe*, *Wallnuts* and *Figs*, mix *turmerick* and *English Ocur*, and *Umber* all in a *bag* together, *Cucumbers*

or

or *Hartichoaks*, *Peescods* or *Filbirds*, *turmerick*, *verdigrease Eggs* and *Serus*, all put into several *baggs* and *steept* in the *Virgins wax*, when 'tis *melting* as before mentioned, for *Damason* bruise *Charcole*, *Indigo* and *blew starch* in a *bag* together, for *flesh colour*, *white Lead*, and *vermilion* mixt, &c.

To counterfeit Rochcandid sweet meats.

Dissolve the *quantity* of a *walnut* of *gum Araback* in two *spoonfulls* of *clear water*, let it be very *thick*, then take any piece of broken *Venice glass*, the *thicker* the better, beat it in a *morter*, so small as you please, that it may serve your occasion, *daub* over some cast *sweet meats*, with the fore-mentioned *gum water*, strew this *powder* on them, and t'will with much *delight* satisfie the *expectation*, *Rochcandy.*

Additional Observations out of a *Manuscript* of Mr. *Hilliards* touching *Miniture.*

When you begin to *Limn* temper all your *colours* fresh with your *Finger*, in your *shell*, or on your *pallat.*

Pearl.

Your *Pearl* must be laid with a *white mixture*, with a little *black*, a little *Indigo* and *Mastick*, but very little in comparison of the *white*, not to the hundreth *part*; that *dry*, give the *light* of the *Pearl* with a little *silver*, somewhat more to the *light* then the *shadowed side*, then take a *white* allai'd with *Masticot*, and underneath the *shadowed side* give it a *compassing stroak*, which shews a *reflection*, then without that a small *shadow* of *Seacole* undermost of all: But note, your *silver* must be laid *round* and *full.*

The manner how to draw with Indian Ink.

To draw with *Indian Ink* after the manner of *washing*, or instead of *Indian Ink* take *Lamp-black* or *Bread burnt*, temper a little of your *Indian Ink* with *fair water*, in

a *ſhell*, or upon your *hand*, your *outlines* being drawn with *Cole* or *black Lead*, take an indifferent *long ſharp pointed pencil*, dip the *point* into *fair vvater*, then dip the *pencil* into the *Indian Ink*, and draw all your *outlines* very *faint*, (Note that all the *temperature* of *Indian Ink* muſt be *thin* and *vvateriſh*, and not too *black*) when it is *dry*, take a little *crum* of *ſtale vvhite bread*, and rub out the *outlines* which you drew with the *Cole*, (if too *black*) then *daſh* on your *ſhadows* very *faintly*, and *deepen* it by *degrees*, as you think convenient, then finish it with *ſtipples*, it being moſt advantagious to any one that shall practice *Limning*, beware of taking too much *colour* in your *pencil*, which you may prevent by drawing the *pencil* through your *Lipps*; in laying on your *shadows*, never lay them to *deep*, but *deepen* them down by *degrees*, for if too *deep* you can never *heighten* them again.

How to prevent your colours from ſinking in.

Take *Roach Allum* and boyle it in *ſpring vvater*, then take a bit of a *ſponge* and *dip* it into the *vvater*, and wet the *back-ſide* of your *paper* that you intend to draw on, very *thin*, whileſt the *vvater* is *hot*, in the *vvetting* of it be as nimble as you can, and this will prevent it from *ſinking*.

The manner how to draw vvith vvater colours upon Sattin.

Take I*zing glaſs* and *ſteep* it Four and twenty hours in water, then *boyl* it in *ſpirit* of *vvine* untill it be very *clammy*, which you will perceive by dipping your *finger* into it, then after your *outlines* are drawn upon the *Sattin*, take an indifferent big *pencil*, and wash it *thin* over as far as your *outlines* are, which will prevent your *colours* from *ſinking* or *flowing*.

A farther obſervation in grinding of colours.

Obſerve in grinding *ultramarine* and other *colours*, that your

your *motion* be not too *swift*, but grind it *gentle* and *slow*, becauſe the *swiftneſs* of the *motion*, cauſeth the *ſtones* to *heat*, by which conſequence your *colour* will *ſtarve* or *looſe* ſomething of it's *Luſtre*, eſpecially if it be a *colour* of no great Body as *Pinck* and *Indigo*, &c. obſerve, in grinding *white*, that you grind it not too much, leaſt it prove *greaſy* or *oyly*, or of a *dirty colour*.

How to prepare Umber.

Take *Umber* and grind it very *fine*, put it into an *earthen pot* or *gally pot*, of *fair water*, cover it over and keep it from *duſt*, and in *froſty weather*, let it *freeze* untill it *thaws* of it ſelf, then power off the water, and when it is *dry* put it up in *paper* for your uſe. And when you *temper* it in your *ſhell*, uſe a drop or two of *white Onyon water* which will preſerve it from *crackling*.

The Art of Etching.

The Grounds and Rules of Etching.

BEfore that you begin to *Etch* upon *copper*, it is very neceſſary to practiſe the *Art* of *drawing*, till you be able if need require to *draw* any *head* after the *life*, or to draw a deſign, for if you intend to *practice* the *Art* of *Etching*, you will find it very profitable to draw after good *prints*, which are well *deſigned*, and *graved*, and when you have *practiſed* ſo long that you are able to *coppy* any *print*, or *drawing* very *exactly*; then draw after good *Heads* of *plaiſter* or *figures*, according to your own *fancy*, which will learn you to *ſhadow* according to *Art*, if well obſerved, therefore be ſure when you draw after *plaiſter*, to obſerve very exactly to take the true *outlines* or *circumferences*, and then take notice how the *ſhadow falls*, then *ſhadow* it very *faint* and *ſoft*, where need requires. The *prints* which I recommend unto you as *abſolutely* the *beſt* to

learn to *Etch* or *Grave* after, be the *prints* of *Henry Goldshis* and *Hermon Muller*, therefore it is very convenient to leaan to *hatch* vvith the *Pen exactly* after either of the aforesaid *prints* of *Goldshis* or *Muller*, and when you have brought it to that *perfection*; and can *draw* very well after *plaister*, you may *practise* to *draw* after the life; but before you *draw* after the life, you must be very *exact* and *true* in your *outlines* or *circumferences*.

The Instruments with their particular names which are used to Etch withall.

A *Copper plate polished*, a piece of *ground* bound up in a piece of *Silk* or *Taffatae*, and preserved from any *dust* or *grease*; and about twenty *Needles* of all *sizes*, the best are made at *Cleafe*; then take the *Needles* and set them indifferent *deep* into some *round slender sticks* about a *Span long*, with a *Needle* at one of the ends of the *sticks*, and a *pencil* at the other, a *scraper*, a *polisher*, and two or three good *French gravers*, well *ground* and *whetted*, and a pair of *Compasses*, a *Ruler*, some *green wax*, a Bottle which holdeth some half a pound of single *Aqua fortis* stopped close with *soft wax*, some *white Lead*, a *Stift*, a *hand Vice* to hold the Plate over the *fire*, an *Oyl stone*.

The use and property of every particular Instrument.

The Copper Plate is the only matter to *Etch* upon; the *ground* is to lay upon the Copper Plate, when they are both *warmed*; your *Needles* are to *hatch* withall upon the *ground*, the *pencil* is to wipe away the bits of *ground*, which rise when you *hatch* upon the *ground* with your *Needles*, the *scraper* is to *scrape* out any thing that is *amiss*, the Polisher is to make *smooth* any place that is *rough*, so that you can mend any place that is *amiss* according to your own Mind; the *Gravers* are to mend here and there a *stroak* where need requires. But note, that your *Gravers* must be *ground*, and *whet* very *sharp* and *smooth*, upon an *Oyl stone* before you use them,

your

your *Compasses* are of very little use in *Etching*, except it be to *measure* a *distance*, or *strike* a *Circle*, the Ruler is used to *hatch* all the *straight hatches* or Lines upon the Plate. The *green wax* is used to make a *Wall* round about the *edges* of your Plate, to keep the *Aqua fortis* from running off from the Plate, the *Aqua fortis* is the finisher of the work, when you have *hatched* the *design* upon the Plate with your Needles. The *white Lead* is used to *scrape* upon the *back-side* of the *drawing* or *print* that you *Etch* after, The Stift is used to *draw* through all the outmost Lines or circumferences of the *print* or *drawing* which you *Etch* after. The *Oyl stone* is to whet your *Gravers* upon; having these things in readiness, Note that if it be a black Ground that lyes upon the Plate, then you must take *white Lead* and *rub* it upon the *back-side* of the *print* or *drawing* which you intend to *Etch* after, but if it be a white Ground, then you must take *black Lead*, or a piece of Charcole and *rub* on the *back* of your *print* as aforesaid.

The manner and way to make the Ground.

Take a quarter of a pound of *Virgins wax*, and half a quarter of a pound of *Expoltum burnt*, of *Amber* One *Ounce*, of *Mastick* One *Ounce*. Having all these *materials* in readiness, you must take the *Mastick* and the *Expoltum* and beat them very fine in a *mortar*; this being done, take a new earthen *Pot*, and put the *wax* into it, and set it upon the *fire*, let not the *fire* be too *hot*, which if you do it will *burn* the *ground*; therefore when they are throughly *melted*, take it off from the *fire*, and pour the *ground* out into a *Pot* of *fair water*, and make it up into a *Ball*, and preserve it from *dust*; and when you will use it, take a *quantity* of it and bind it up in a piece of *Taffatae* or *Silk*, and use it as hereafter.

A red Ground.

Grind *red Lead*, very well tempered with *Vernish*.

A white Ground.

Take of *wax* one *Ounce*, *Rosin* two *Ounces*, *melt* them together, add thereto a quarter of an *Ounce* of *Venice Serus*, finely *ground*.

A black Ground.

Spaltum. *Asphaltum* two *parts*, *Bees wax* one *part*, *melt* them together, being *warm*, lay it *thinly* on with a *Lawn rag*.

Another Ground.

Grind *red Lead* with *Linseed Oyl*; Note, your *ground* must be laid very *thin*.

The manner and way to lay the Ground upon the Plate.

Take some *Charcole* and *kindle* them, this being done, take an *hand-vice* and *screw* it *fast* to one of the *corners* of the Plate, as near to the *edge* as you can, because you must lay the *ground* all over the Plate, then take the Plate and hold it over the *fire*, till it be so *warm* to *melt* the *ground*, then take the *ground* which is bound up and *rub* it to and fro upon the Plate till it be covered all over alike; then take of the *stiffest Feathers* out of a *Ducks wing* that is not *ruffled*, and spread the *ground* very *thin*, and *smooth* every where alike upon the Plate, but have a special care you *heat* not the Plate too *hot*, least you *burn* the *ground*; which if it be, the *ground* will break up when you put on the *Aqua fortis* and spoil the Plate; you may discover when it is *burnt*, by its rising as it were *sandy*, which if you perceive, you must take a *clean linnen rag*, and *warming* the Plate, wipe the *ground clean* off, and lay a new as aforesaid. But if you perceive the *ground* to be *smooth* and not *sandy*, take it off from the *fire*, and when it is *cold*, take a piece of *Link* and hold under the *ground* till you have *smoaked* it very *black*, but let not the *flame* touch the *ground*, least you *burn* it, this being done, if the Plate be *cold* hold it over the *fire* again till it be just warm, to let the *smoak melt* into the *ground*, that it may not rub off under your *hand*, then

hold

hold it off from the *fire*, with the *ground-side* of the Plate *downwards* for to preserve it from the *dust*, otherwise when the *ground* is *warm*, *dust* will flye in and spoil it, therefore you must hold it with the *ground-side downwards* untill the *ground* is *cold*.

The way to draw the outmost lines of any Print or drawing upon the ground of the Plate.

First take the *drawing* or *Print* which you intend to *Etch* after, and *scrape* a little *white lead* upon the *back-side* of it, then take a *feather* and *rub* it over every where alike, and *shake* off that which remains, then take the *print* and lay it upon the Plate on that side the *ground* is, then fasten the four *corners* of the *print* to the Plate with a little *soft wax*; this being done, take the *Stift* and draw upon the *print* all the outmost *circumferences* and *lines exactly*, and when you have so done, take off the *print* from the Plate, and all the same *outlines* and *circumferences* which you drew upon the *print* with the *Stift*, will be *exactly* and *unfailably* upon the *ground*.

Several Observations in Hatching.

First observe *exactly* and *judiciously* how your *principle* is *shadowed*, and how close the *Hatches* joyn, and how they are *laid*, and which way the *light falleth* or *cometh*; the *light* must fall all one way, for if the *light* fall *side wayes* in your *print*, you must *hatch* the *other side* which is *farthest* from the *light darkest*, and so place your *lights* altogether on the *one side*, and not *confusedly* to have the *light* come on *both sides* alike, as if it stood in the midst of many *lights*, for neither doth the *light* withall its *brightness* illuminate any more then that part that is *directly opposite* unto it, then observe *exactly* how close all the *Hatches* joyn, and how they are laid, and which way they *twist* and *wind*, then follow them as *exactly* as *possibly* you can, but before that you begin to *Hatch* or *shadow*, you must draw all the *outmost lines* with a *Needle*

upon the *ground*, as *Artificially* as you can; and then you muſt *ſhadow* it with your *Needles* of ſeveral *ſorts* according to your *principle*, and when you will make a *broad ſtroak*, then break off the *point* of a great *Needle* and *whet* it upon an *Oyl ſtone four ſquare* untill it comes to a *point*; and if you will *hatch fine ſtroaks*, then you muſt uſe *fine pointed Needles*; and if *middle ſizes*, then break off the *point* of a *middle ſize Needle*, and *whet* it as aforeſaid, and ſo according to all *ſizes*. But ſome *Maſters* when they make a *bold ſtroak*, *hatch* it *fine* at firſt, and ſo by degrees make them *broader*.

Neceſſary Obſervations in Etching Landskips.

Obſerve when you *Etch Landskips*, to make or *hatch* that which is neareſt to the *Eye darkeſt*, and ſo let it *loſe* or *decline* its *ſhadows* by degrees, and that which is furtheſt off muſt be *fainteſt*, and ſo *loſe* equally by degrees; the ſame Obſervation muſt be in making the *Skie*, for that which is neareſt to the *Eye* muſt be the *darkeſt ſhadowed*, but in general as *faint* and *ſoft* as poſſible, and ſo alſo let it *loſe* by degrees as before is mentioned, and the nearer the *Skie* cometh to the *ground*, the more it muſt *loſe* and be *fainter*; but when they as it were meet together the *Skie muſt* quite be *loſt*, and when you have *hatched* it as *exactly* as you can *poſſibly* with your *Needles*, according to the *print* or *drawing*, that you do it after; this being done, *compare* them *exactly* and *judiciouſly* together, and if you find it like the *original*, take ſome *green ſoft wax*, and make a *wall* round about the *edges* of the Plate.

How to make the Wax wall round about the Plate, to keep the Aqua fortis from running off from it.

Take ſome *green ſoft wax* and *temper* it till it be *warme*, then *draw* it into a *long ſlender roul* as long as will reach about the Plate, then *flat* it and *faſten* it about the *edges* of the Plate, and let it be about half an *inch high*, then take

take an old *knife* and *heat* it in the *fire*, and *ſear* the *wax* round about under the Plate very *cloſe*, otherwiſe the *Aqua fortis* will run out, but be ſure to faſten the *wall* as near to the *edges* of the Plate as you can conveniently, then pour the *Aqua fortis* upon the Plate, letting it *lye* till it be *deep* enough.

How to uſe the Aqua fortis on the Plate.

You muſt uſe ſingle *Aqua fortis*. Take a *quantity* of *Aqua fortis* and pour it into a *glaſs* and *mingle* it with a little *Vinegar* to weaken it if it be too *ſtrong*, or a little *Aqua fortis* which hath been uſed before; for in caſe the *Aqua fortis* work too *ſtrong*, it will make the *work* very *hard*, and ſometimes make the *ground* to break up; and when you have *tempered* it very well, poure it upon the Plate almoſt as *high* as the *wax wall*; the *deeper* the *Aqua fortis* lyeth, the *harder* it will *eat*, and when you perceive it to be *deep* enough, pour off the *Aqua fortis* from the Plate into a *glaſs*, and preſerve it to *mingle* with other as aforeſaid; this being done, take ſome *fair water* and *waſh* the Plate, and then take off the *wax wall* and preſerve it for the ſame uſe again; then *warme* the Plate and take a *clean linnen rag* when it is indifferent *warme*, and rub off the *ground* from the Plate very *clean*, then take ſome *Oyl* and rub over the Plate to *clean* it, and if you perceive that the *Aqua fortis* hath not *eaten* as *deep* in ſome places, as it ſhould be, then it muſt be helped with a *Graver*.

Obſervations by which you may know when it is deep enough.

When the *Aqua fortis* hath lain upon the Plate a little more then a *quarter* of an *hour*, or *half* an *hour*, there being no certainty in time, becauſe ſometimes the *Aqua fortis* will work *ſtronger* then at another; therefore when you think it is *deep* enough, pour off the *Aqua fortis* from the Plate into a *glaſs*, then *waſh* the Plate with a little *fair water*, then take a *Knife* and *ſcrape*

off a little piece of the *ground* where it is *hatcht*, and may be leaſt prejudicial to the Plate, and if you perceive it not to be *deep* enough, take a little *candle tallow* and *melt* it in a *ſpoon*, and while it is *warm*, take a *pencil* and cover the *plate* with it, where you *ſcraped* the *ground* off, then pour the *aqua-fortis* upon it again, and let it lye till you gueſs it to be *deep* enough; then pour the *Aqua fortis* from the Plate as aforeſaid, and at any time when you perceive that the *Aqua fortis* doth not *work ſtrong* enough, you pour off half the *old*, and refresh it with ſome *new*, for when the *Aqua fortis* hath been upon the Plate about half an *hour*, it will be much the *weaker*, becauſe the *ſtrength* of it doth *evaporate* away, and by a little *practice* you will come to the certain *knowledge* when the *Aqua fortis* hath *eaten deep* enough.

Another way to know when it is deep enough.

Take a little piece of a *Copper plate*, and lay a *ground* upon it as you before mentioned, and make a *wax wall* about it, then *hatch* it with ſeveral *hatches* as you think beſt, and when you pour the *Aqua fortis* upon the *one*, pour it upon the *other*, and when you think they be *eaten deep* enough, pour the *Aqua fortis* from the little Plate, and *waſh* it with ſome *fair water* as aforeſaid, then take a *Knife* and *ſcrape* off a little piece of the *ground* from the little Plate where it is *hatcht*, and in caſe you percieve it not *deep* enough, cover the *place* again with ſome *warme candle tallow*, and then pour the *Aqua fortis* upon it again till you gueſs it be enough, then pour the *Aqua fortis* from the little Plate again, and try as before, and if you ſee it to be enough, pour the *Aqua fortis* from the great Plate, and *waſh* it with a little *fair water* before you *warm* it, or elſe the *Aqua fortis* will *ſtain* the Plate.

A way to lay a white Ground upon a Black.

First you must *understand* that most *grounds* are *black*, and when you lay a *white ground* upon a *black* you must not *smoak* the *black* with a *Link*, and you must lay the undermost *ground* the *thinner*, when you lay a *white ground* upon it; and if you would lay a *white ground* upon a *black*, take a quantity of *Serice*, as much as you think will cover the *plate*, and *grind* it very *fine* with *gum water*, and temper it very *thin*, then take a *pencil* and *wash* the *plate* all over very *thin* and *even*.

The way to lay a red Ground upon a black Ground.

Take the *red Chalk* and *grind* it very *fine* with *gum water*, then take a *pretty big pencil*, and *wash* the *plate* all over with the *red ground* very *thin* and *smooth*, as before mentioned.

A Receipt for a ground taken out of a Manuscript of Collots.

Take a quarter of a pound of *Virgins wax*, and half a quarter of a pound of the best *Expoltum burnt* of *Amber*, and half a quarter of a pound of *Mastick* if it be *warm weather*, because it doth harden the *ground* and preserve it from injury, when you *lean* with your *hand hard* upon it; if it be *cold weather*, then take but an ounce of *Mastick*; this being observed, then take an ounce of *Rosin*, and an ounce of *Shoomakers pitch*, and half an ounce of other *pitch*, half an ounce of *Verniſh*; having all these *materials* in readiness, take a new earthen *pot*, and put the *Virgins wax* into it; and when it is *melted*, stir it about, and put in the other *materials* by *degrees* as before mentioned, and when they are throughly *mingled* and *melted*, take the *pot* off from the *fire* and pour it out in a *clean pot* of *fair water*, and *work* it into a *Ball*, and preserve it from *dust* and *greaſe*, and when you have occasion to make use of it, take a quantity thereof and *bind* it up in a piece of *Silk*, and make use of it as before mentioned.

The Ground of Rinebrant of Rine.

Take half an ounce of *Expoltum burnt* of *Amber*, one ounce of *Virgins wax*, half an ounce of *Maſtick*, then take the *Maſtick* and *Expoltum*, and beat them ſeverally very *fine* in a *Mortar*; this being done, take a new earthen *pot* and ſet it upon a *Charcole-fire*, then put the *Virgins wax* into it and *melt* it, then ſhake into it the *Maſtick* and *Expoltum* by *degrees*, ſtirring the Wax about till they be throughly *mingled*, then pour it forth into *fair water* and make a *Ball* of it, and uſe it as before mentioned, but be ſure you do not *heat* the *plate* too *hot* when you lay the *ground* on it, and lay your *black ground* very *thin*, and the *white ground* upon it, this is the only way of *Rinebrant*.

The way to preſerve any Ground, which is laid upon a Plate in Froſty weather.

Take the *plate* and wrap it very warm in a *wollen cloth*, and lay it in the warmeſt place you can convenient, for if the *froſt* is gotten into the *ground*, it will break up when you pour the *Aqua fortis* upon it.

A way to preſerve the Plate from injury of the Aqua fortis, where the Ground breaks up.

If you perceive the *ground* to break up in any *place*, pour off the *Aqua fortis* from the *plate* and *waſh* it with a *little fair water*, then take a *quantity* of *Candle tallow* and *melt* it in a *ſpoon*, and while it is *warm* take a *pencil* and cover the Plate which is broken up with the ſaid *tallow*, and ſo far as the *tallow* is *ſpread*, the *Aqua fortis* will not eat; ſome make uſe of *Verniſh* inſtead of *tallow*, and when you have covered the place that is *broken*, pour on the *Aqua fortis* again, and let it lye upon the *plate* till you *gueſs* it hath eaten enough; then pour the *Aqua fortis* from the *plate* and preſerve it, then take the wax Wall and preſerve it alſo, and waſh the *plate* with a little fair Water, then rub off your *ground*

as

as aforesaid, and for the places which the *ground broak* up in, it must be helped with a *Graver*.

Therefore it will be necessary for one that desireth to learn this Art, to practice graving a little, so much as to help a stroak where you think convenient.

A way to make the Aqua fortis work soft or hard according to nature or art.

First take *Candle tallow* and *melt* it in a *spoon*, then with a *pencil* cover that place so far as you will have it to be faint, but note it must be after the *Aqua fortis* hath lain upon your *plate* an indifferent while, and so by *degrees* you must use the *tallow* as you would have it fainter, this is very necessary when you *Etch Landskips*, which must *lose* and stand at a distance by *degrees*, therefore when you *Etch Landskips*, observe to stop off that place first which must be fainteſt, and so by degrees stop it off, and make it *lose equally*; and note the nearer you come to the *Eye*, it must be *strongest* and *darkest shaded*, but not on that side from whence the *light* cometh for that side must be preserved as *faint* as may be, but according to *art*.

Observations in Etching Prospective.

Prospective is a thing that is one of the difficulteſt *Arts* that is practised; because it is not *rightly understood*, but by good *Arithmetick*; otherwise you can never *understand prospective*, because you can never *gueſs rightly* how much a Pillar or Figure, or the like must *decline*, or *lose* at their several distances, according to *Art* and *Proportion*; For when you *Etch* a piece of *prospective* after a drawing or a print, observe these Rules, beware of *perfection* at a distance, and be sure to *shadow* that which is neareſt to the *Eye*, *perfecteſt* and *strongeſt*, and the farther from the *Eye*, it must *decline* in *length* and *breadth*, and *heighth* according to

Art and *Proportion*, obſerve alſo to let it *loſe* and be fainter by equal *degrees*.

A way to Grave any hand or letter upon a Copper Plate.

Take ſome *Charcole* and kindle them, then take a *hand-vice* and ſcrew it to the corner of the *plate*, and hold it over the *fire* till it be warm, then take a piece of *Virgins wax*, and rub it all over the *plate* untill it is covered every where alike; this being done, take a *ſtiff feather* of a *Ducks wing* that is not *ruffled*, and drive it even and ſmooth every where alike, and let it coole, then write the *hand* and *letter* which you intend to *grave* upon the *plate*, on a piece of *paper* with *ungum'd Ink*; then take the *paper* which you have written, and lay that ſide which is written downwards next to the wax, and faſten the four *corners* with a little *ſoft wax*, but be ſure to place the writing ſo, that the lines may run ſtraight, then you muſt take a *Dogs Tooth*, and rub the *paper* all over which is *faſtned*, and not miſs any place; this being done, take off the paper from the *plate* and you ſhall ſee the very ſame Letters which you wrote on the paper hath left their *perfect impreſſion* upon the *wax*; then take a *Stift* and draw all the Letters through the wax upon the *plate*, and when you have done that, warm the *plate*, and take a *linnen rag* and rub the wax clean off, and you ſhall ſee all the Letters drawn upon the Copper, then get ſome good *French Gravers* and *grind* them, as they ſhould be very *ſharp* towards the *points* upon a *Grind-ſtone*, and afterwards whet them very ſmooth and sharp upon a good *Oyl ſtone*, then *Grave* the Letters with them.

The way to poliſh a Copper Plate.

At firſt you buy the *Copper rough*, then you have it *planiſhed*, if you cannot do it your ſelf; when it is *planished*, then you *polish* it with theſe following *Inſtruments*.

The Names of the Instruments or Tooles which are used to poliſh a Copper Plate.

A *Plain* which cuts very well, and of an indifferent *bigneſs*, but not broad; ſome pieces of *pumice-ſtones* ſome pieces of *Sand-ſtones*, and ſome *Moulton-ſtones*; a ſoft *blew ſtone*, and a *burniſher* and *ſcraper*; and ſome *Charcole*.

The uſe of every particular Tool or Inſtrument.

Firſt faſten your *Plate* with ſome ſmall *Nails*, to a place that is as *high* as your *middle*; then make uſe of the *plain* to *ſhave* all the *roughneſs* off from it and make it very *even* in all places alike, and if you perceive any *crackles* or little *holes* upon that ſide which you *ſhave*, then you muſt *ſhave* them all *clean* out, and when you have *ſhaved* it *even* and *ſmooth* with the *plain*, then take a piece of *Sand-ſtone*, and *wet* the *plate* with ſome *water*, and rub to and fro with the *ſtone* upon the *plate*, till you have worn it very *ſmooth* and *even* every where alike, but be ſure to chooſe the *ſofteſt ſtones*, becauſe they make the leaſt *ſcratches*; and when you have worn it *even* and *ſmooth* with this *ſtone*, *waſh* off the *ſand* from the Plate, and take a piece of *Pumice ſtone* and rub to and fro upon the Plate, quite a croſs the *grain* of the former *ſtone*, becauſe it is of a *hard ſandy nature*, and will therefore leave ſome *ſcratches*; therefore the *Pumice ſtone* is of a more *ſofter* and *ſpungy nature* and is alwayes uſed to *weare* out the former *ſcratches*: and when you have *worn* out all the former *ſcratches*, you will perceive the *plate* to be worked into a *finer grain*, then *waſh* the *ſand* very *clean* off from the *plate*,; then make uſe of the *moulton ſtone*, and *work* with it quite acroſs the *grain* of the *Pumice ſtone*, untill you have *worn* it quite out; withall be ſure you ſupply this and all the other *ſtones* with *water*, when you work with them upon the *plate*, and when you have *worn* out all the

ſcratches of the *Pumice ſtone clean* out, then for the fourth make uſe of the *ſoft blew ſtone*, it being of a very *ſoft grain* and *ſofter* then any of the former; then work with that quite acroſs the *grain* of the *Moulton-ſtone*, till the *grain* is *worn* out, but if you perceive any *ſcratches* in the *plate* here or there, rub them over with your *burniſher* till you have work't them out, but in caſe they are very *deep*, you muſt make uſe of your *ſcraper*, and *ſcrape* them out, and *burniſh* them afterwards; this being done, in the fifth place you muſt *burniſh* it all over; laſt of all take a *charcole* which is throughly *burnt*, and *ſcrape* off the *Rine*; then put it in the *fire* till it is throughly *kindled*, then take it out and *quench* it in *Chamber Lee*, and make uſe of it as of the former, till you have *glaſed* the *plate*; then *wash* it very clean with *fair water*, and let it *dry*.

The Manner or Way of Mezo Tinto.

FIrſt take a very well poliſhed Plate of Copper, and ruffen it all over with your Engin one way, then croſs it over with the Engin again, and if you find occaſion, then croſs it over the third time, untill it be ruffened all over alike (that is to ſay) if it were to be printed, it would print black all over; this done, take Charcole or black Chalk to rub over the plate, and then draw your deſign with white Chalk upon the plate, then take a ſharp Stift and trace out the outlines of the deſign you drew with the white Chalk, and where you would have the light ſtrike ſtrongeſt, take a burniſher, and burniſh that part of the plate, where you would have the light ſtrike as clean as it was when it was firſt poliſhed; where you would have the fainter light, you muſt not poliſh it ſo much, and this way you may make it either fainter or ſtronger, according to your fancy. As for the manner or ſhape of the Engin, they are divers, and if any ingenious perſon have a deſire to have any made, the Author *will give them farther directions.*

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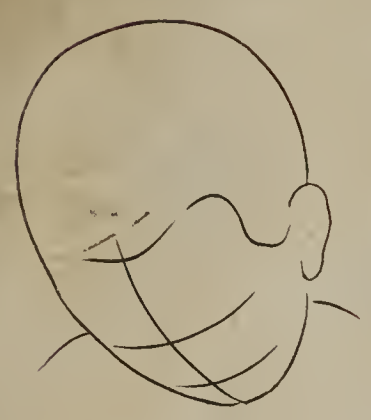
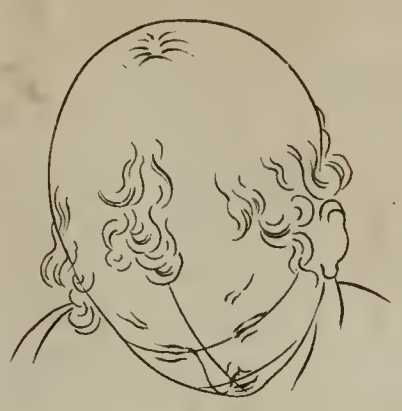
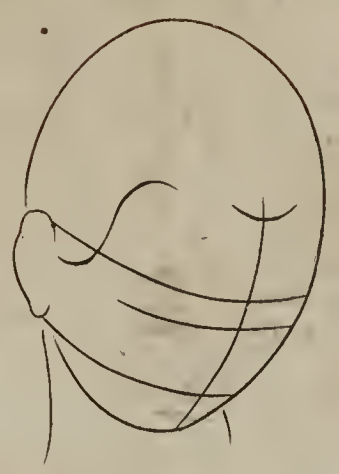
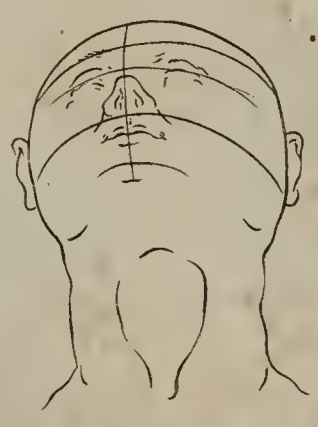
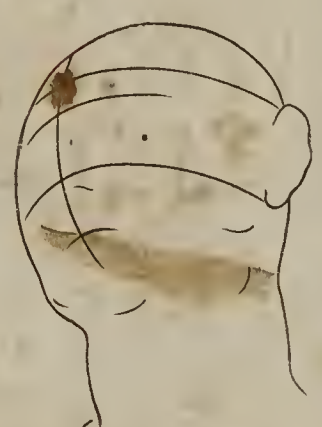
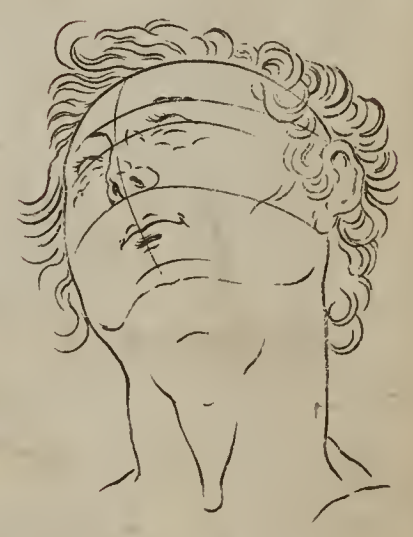
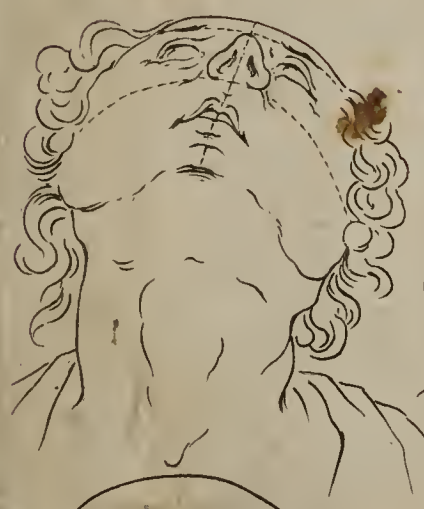
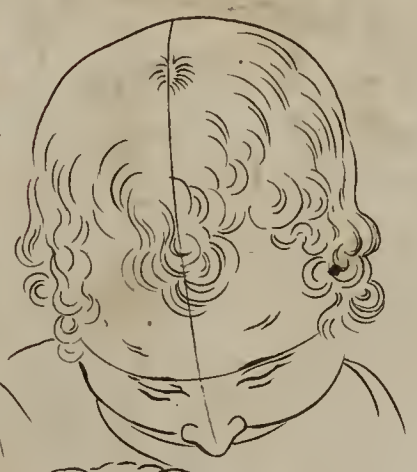
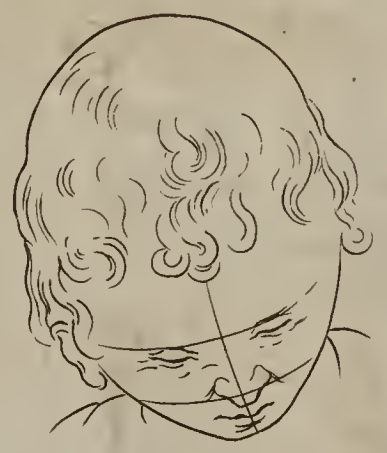
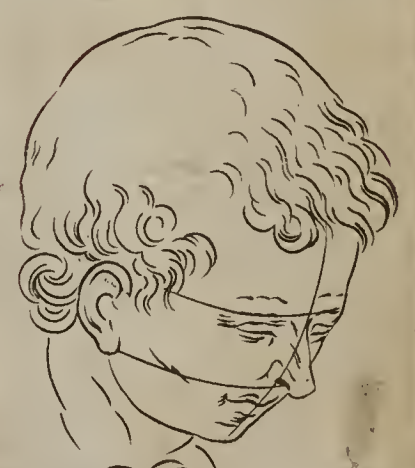
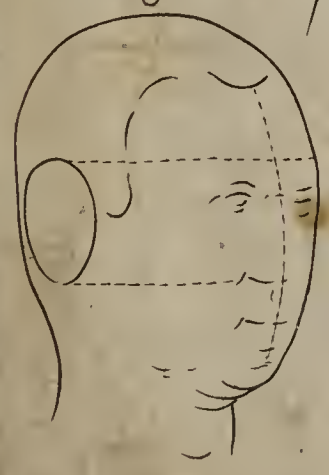
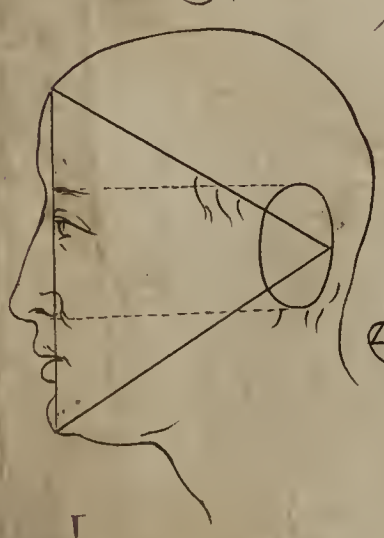
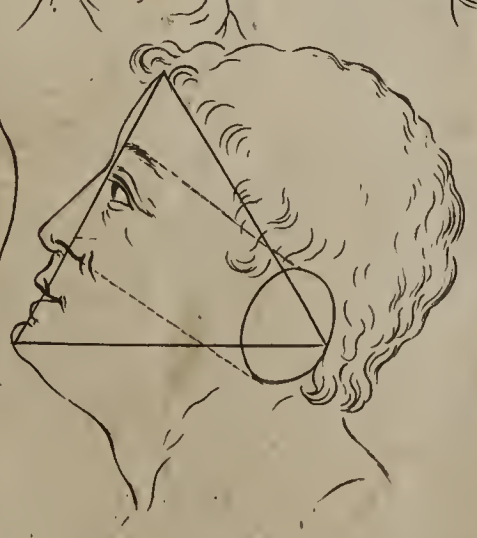
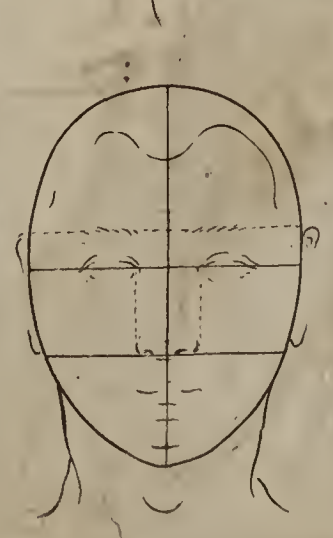




J

Sr. Thos. Beaumont of Whitley Hall Parish of Kirkbleton Co. York Kn. Ob. 1668. born 1606. = Eliz. Dr. of Gregory Armystage of Netherton Gent

1. Adam Bt. Ob. 1655. = Eliz. Ashton

2 John Ob. S.P. 1660

Richard Beaumont of Lascells Hall parish of Kirkbleton Esq. Capt. in El Cas Stutens Reg. born 1637. Ob. 1706. = Anne Dr. of Thos. Ramsden gent

Richd. Bt. = Frances Lowther

Eliz. Mr. Edw. Tildsley Annem. Peter Bold Co. Lanc. Heir Chil. Dies. [illegible] Law of Rich.

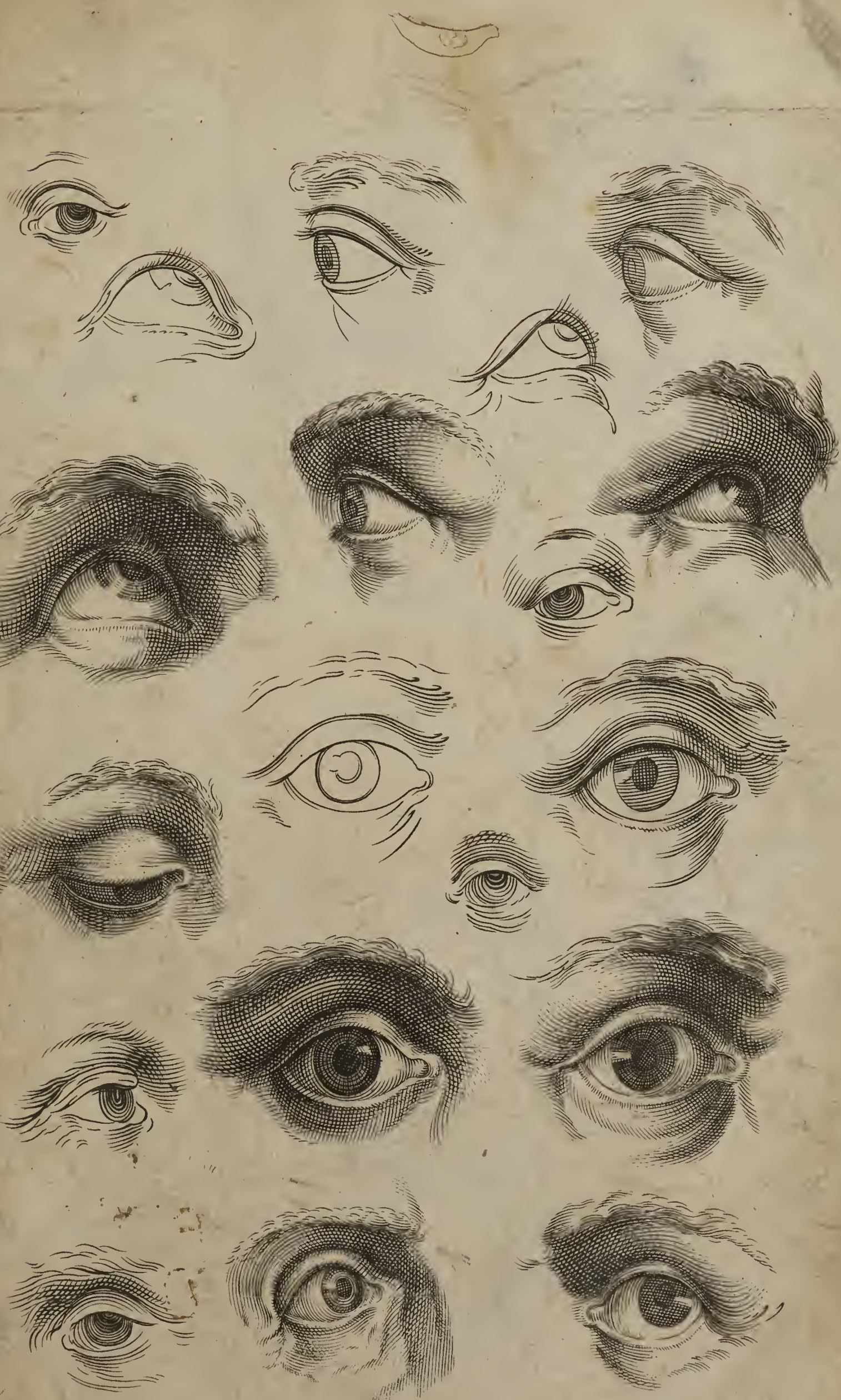
Richd. Bt. of Lascells Hall & Whitley Hall born 1670. Ob. 1723 heir by Will = Lyanna

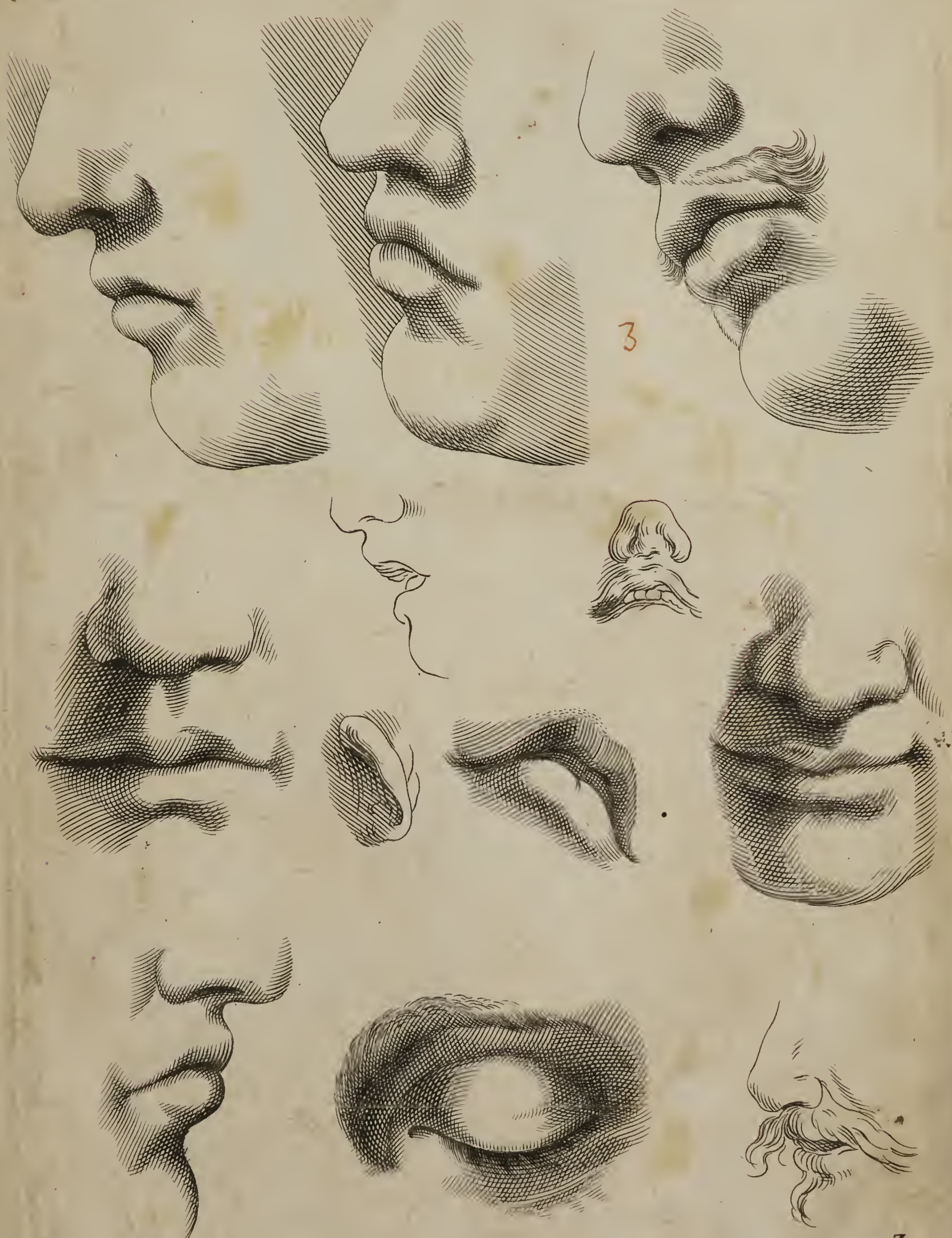
Richd. Beaumont =

William Beaumont, Lunar, a Pupil of Henry Tilson's. born Ob. 1716.

Richd. Bt. Ob. 1704. = Katherine Ds. & heir of Thos. Stringer Esq. Ob. S.P. 2. Hist. Thos. [illegible] Earl of Wesmoreland

Dow [illegible]





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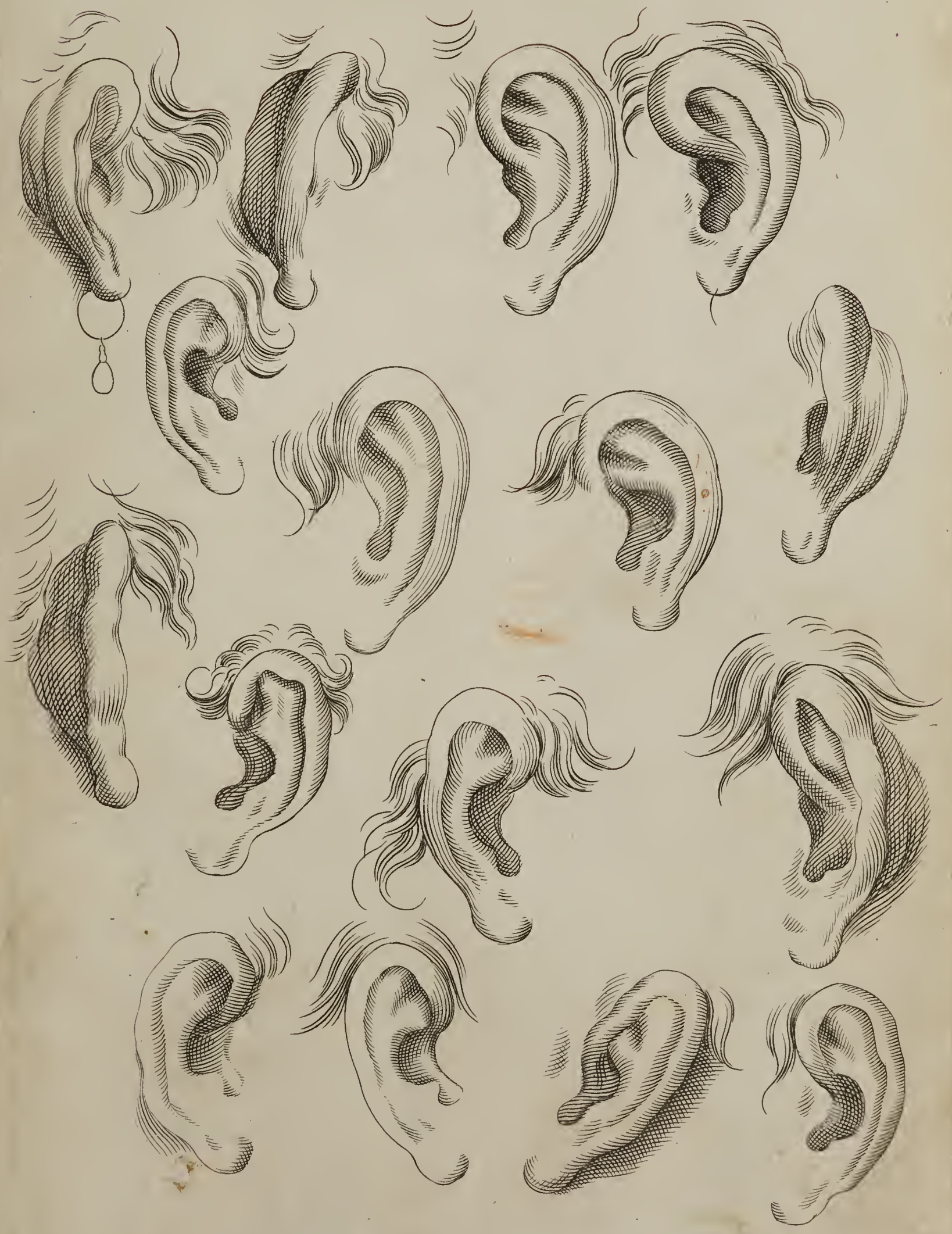

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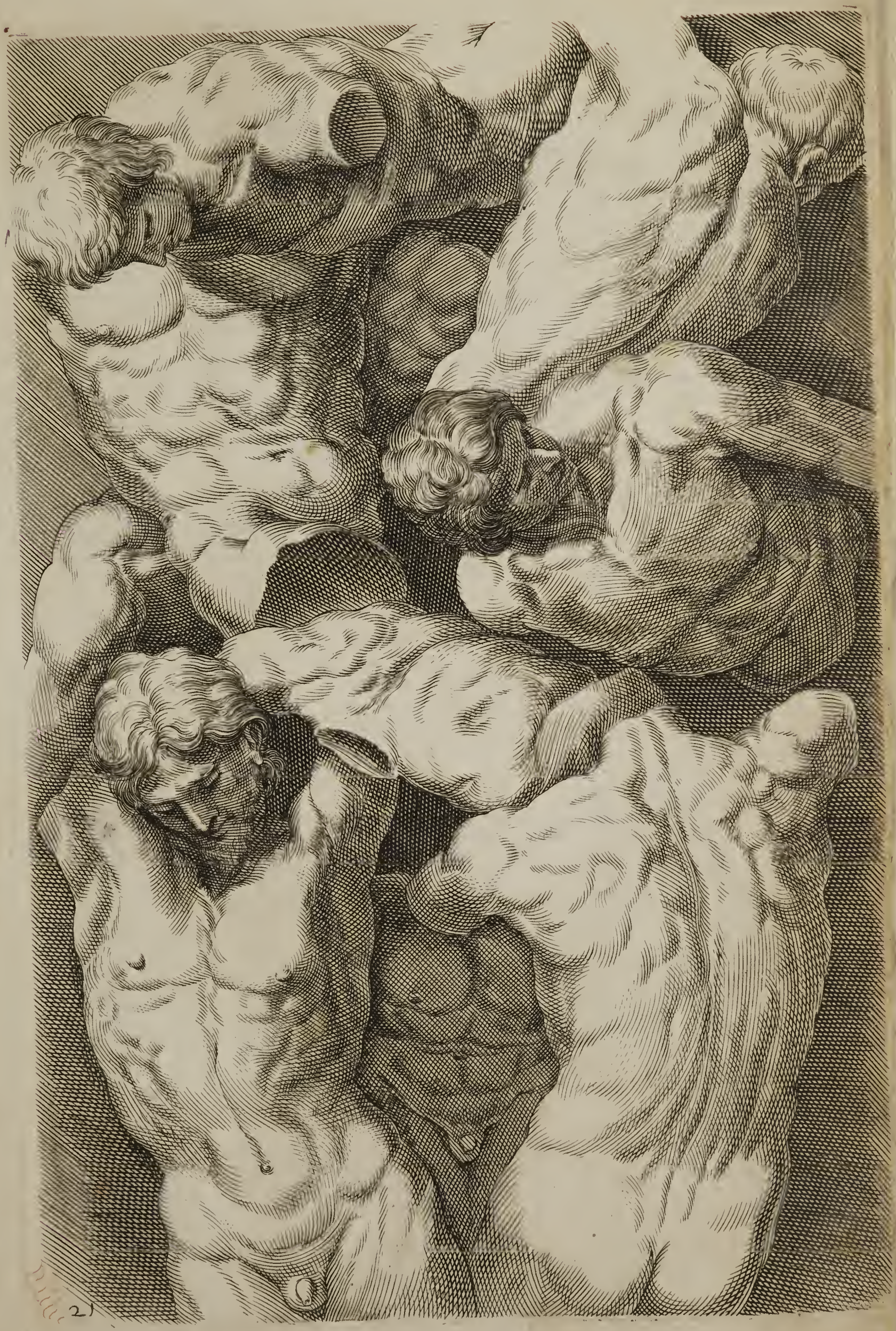

2 Low Frames and a Dozen of such Frames as these but yo^u
made for all Waterhouses ye: was at 6 groats a piece and one
Square Such sort Frame about 12: price and 2 Slath^s
of fine white 2 of two Shilling white and 2 Yolley Cover
and 2 of Cullins Earth ye: of fine small Grafraims for y^e
Dutchess of Grafton

William Beaumont

Solomon Simpsbey

Richard Jackson Book 1805